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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Apr 21	Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 39	May 16	CHEMREACT will be removed from STN
NEWS 40	May 19	Simultaneous left and right truncation added to WSCA
NEWS 41	May 19	RAPRA enhanced with new search field, simultaneous left and right truncation

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT

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                MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
                AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

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FILE 'BIOSIS' ENTERED AT 11:53:21 ON 28 MAY 2003
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=> s 2()o()methyl (s) primer
L1          64 2(W) O(W) METHYL (S) PRIMER

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          53 DUP REM L1 (11 DUPLICATES REMOVED)

=> d l2 ibib abs tot

L2   ANSWER 1 OF 53  USPATFULL
ACCESSION NUMBER:       2003:127029  USPATFULL
TITLE:                  Circular DNA vectors for synthesis of RNA and DNA
INVENTOR(S):            Kool, Eric T., Stanford, CA, UNITED STATES
PATENT ASSIGNEE(S):     University of Rochester, Rochester, NY, UNITED STATES
                        (U.S. corporation)

                             NUMBER         KIND    DATE
                        ---------------- ------ --------
PATENT INFORMATION:     US 2003087241      A1   20030508
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APPLICATION INFO.: US 2001-997931 A1 20011130 (9)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-569344, filed on 11 May 2000, GRANTED, Pat. No. US 6368802
Continuation of Ser. No. US 1997-805631, filed on 26 Feb 1997, GRANTED, Pat. No. US 6096880
Continuation-in-part of Ser. No. US 1995-393439, filed on 23 Feb 1995, GRANTED, Pat. No. US 5714320
Continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MUETING, RAASCH & GEBHARDT, P.A., P.O. BOX 581415, MINNEAPOLIS, MN, 55458
NUMBER OF CLAIMS: 123
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Page(s)
LINE COUNT: 3888

AB The present invention provides methods for synthesis and therapeutic use of DNA and RNA oligonucleotides and analogs. RNA oligonucleotides are synthesized using a small, circular DNA template which lacks an RNA polymerase promoter sequence. The RNA synthesis is performed by combining a circular single-stranded oligonucleotide template with an effective RNA polymerase and at least two types of ribonucleotide triphosphate to form an RNA oligonucleotide multimer comprising multiple copies of the desired RNA oligonucleotide sequence. Preferably, the RNA oligonucleotide multimer is cleaved to produce RNA oligonucleotides having well-defined ends. Preferred RNA oligonucleotide multimers contain ribozymes capable of both cis (autolytic) and trans cleavage.

L2 ANSWER 2 OF 53 USPATFULL
ACCESSION NUMBER: 2003:127028 USPATFULL
TITLE: Methods and primers for detecting target nucleic acid sequences
INVENTOR(S): Whitcombe, David Mark, Manchester, UNITED KINGDOM
Theaker, Jane, Macclesfield, UNITED KINGDOM
Gibson, Neil James, Macclesfield, UNITED KINGDOM
Little, Stephen, Manchester, UNITED KINGDOM
PATENT ASSIGNEE(S): Zeneca Limited (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003087240	A1	20030508
APPLICATION INFO.:	US 2001-974870	A1	20011012 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-200232, filed on 25 Nov 1998, GRANTED, Pat. No. US 6326145

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-12768	19980613

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ROTHWELL, FIGG, ERNST & MANBECK, P.C., 1425 K STREET, N.W., SUITE 800, WASHINGTON, DC, 20005
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 42 Drawing Page(s)
LINE COUNT: 1058
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for the detection of a target nucleic acid, which method comprises contacting template nucleic acid from a sample with (i) a signalling system and (ii) a tailed nucleic acid primer having a template binding region and the tail comprising a linker and a target binding region, in the presence of appropriate nucleoside triphosphates and an agent for polymerization thereof, under conditions such that the

template binding region of the primer will hybridize to a complementary sequence in the template nucleic acid and be extended to form a primer extension product, separating any such product from the template whereupon the target binding region in the tail of the primer will hybridize to a sequence in the primer extension product corresponding to the target nucleic acid, and wherein any such target specific hybridization causes a detectable change in the signalling system, such that the presence or absence of the target nucleic acid in the sample is detected by reference to the presence or absence of a detectable change in the signalling system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 3 OF 53 USPATFULL

ACCESSION NUMBER: 2003:106233 USPATFULL

TITLE: Compositions and methods for the therapy and diagnosis of pancreatic cancer

INVENTOR(S): Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES

PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003073144	A1	20030417	
APPLICATION INFO.:	US 2002-60036	A1	20020130	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2001-333626P	20011127	(60)
	US 2001-305484P	20010712	(60)
	US 2001-265305P	20010130	(60)
	US 2001-267568P	20010209	(60)
	US 2001-313999P	20010820	(60)
	US 2001-291631P	20010516	(60)
	US 2001-287112P	20010428	(60)
	US 2001-278651P	20010321	(60)
	US 2001-265682P	20010131	(60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

NUMBER OF CLAIMS: 17

EXEMPLARY CLAIM: 1

LINE COUNT: 14253

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 4 OF 53 USPATFULL

ACCESSION NUMBER: 2003:100299 USPATFULL

TITLE: Methods for preparing oligonucleotides having chiral phosphorothioate linkages

INVENTOR(S): Ravikumar, Vasulinga T., Carlsbad, CA, UNITED STATES
PATENT ASSIGNEE(S): ISIS Pharmaceuticals, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003069410	A1	20030410
APPLICATION INFO.:	US 2001-881535	A1	20010614 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Woodcock Washburn Kurtz, Mackiewicz & Norris LLP, 46th FLoor, One Liberty Place, Philadelphia, PA, 19103
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1859
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods are provided for preparing internucleotide phosphorothioate linkages that are enhanced in the Sp or Rp enantiomer comprising coupling a synthon with a 2'-substituted nucleoside in the presence of coupling agent that is selected to enhance either the Rp or Sp

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 5 OF 53 USPATFULL
ACCESSION NUMBER: 2003:71372 USPATFULL
TITLE: Use of primers containing non-replicatable residues for improved cycle-sequencing of nucleic acids
INVENTOR(S): Cherry, Joshua L., Cambridge, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003049657	A1	20030313
APPLICATION INFO.:	US 2002-147185	A1	20020515 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-438667, filed on 12 Nov 1999, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-108345P	19981113 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Joshua L. Cherry, 2102 Biological Laboratories, 16 Divinity Ave., Cambridge, MA, 02138
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 934
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides primers for use in cycle sequencing which are not subject to exponential amplification of undesired artifacts. Such primers cannot be replicated by the nucleic acid polymerases used in these reactions and, therefore, do not produce artifacts. Methods of linear amplification of a nucleic acid template using such primers are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 6 OF 53 USPATFULL
ACCESSION NUMBER: 2003:64696 USPATFULL
TITLE: Amplification using modified primers
INVENTOR(S): Laird, Walter J., Pinole, CA, UNITED STATES
Niemiec, John T., San Leandro, CA, UNITED STATES

	NUMBER	KIND	DATE

PATENT INFORMATION:	US 2003044817	A1	20030306
APPLICATION INFO.:	US 2001-83233	A1	20011024 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-243182P	20001025 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE & EDMONDS LLP, COUNSELLORS AT LAW, 1155 Avenue of the Americas, New York, NY, 10036-2711
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 1272
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides modified primers for use in the amplification of a nucleic acid sequence. Amplifications carried out using the modified primers result in less template-independent non-specific product (primer dimer) compared to amplifications carried out using unmodified primers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 7 OF 53 USPATFULL
ACCESSION NUMBER: 2003:51101 USPATFULL
TITLE: Modified oligonucleotides and methods for determining the presence of a nucleic acid analyte in a sample
INVENTOR(S): Becker, Michael M., San Diego, CA, UNITED STATES
Majlessi, Mehrdad, San Diego, CA, UNITED STATES
Brentano, Steven T., Santee, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003036058	A1	20030220
APPLICATION INFO.:	US 2001-808558	A1	20010314 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-565427, filed on 5 May 2000, PENDING Continuation of Ser. No. US 1997-893300, filed on 15 Jul 1997, GRANTED, Pat. No. US 6130038

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21818P	19960716 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: GEN PROBE INCORPORATED, 10210 GENETIC CENTER DRIVE, SAN DIEGO, CA, 92121
NUMBER OF CLAIMS: 421
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 4476
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention concerns oligonucleotides containing one or more modified nucleotides which increase the binding affinity of the oligonucleotides to target nucleic acids having a complementary nucleotide base sequence. These modified oligonucleotides hybridize to the target sequence at a faster rate than unmodified oligonucleotides having an identical nucleotide base sequence. Such modified oligonucleotides include oligonucleotides containing at least one 2'-O-methylribofuranosyl moiety joined to a nitrogenous base. Oligonucleotides can be modified in accordance with the present invention to preferentially bind RNA targets. The present invention also concerns methods of using these modified oligonucleotides and kits containing the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 8 OF 53 USPATFULL
ACCESSION NUMBER: 2003:44706 USPATFULL
TITLE: Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions
INVENTOR(S): Barany, Francis, New York, NY, UNITED STATES
Lubin, Matthew, Rye Brook, NY, UNITED STATES
Belgrader, Phillip, Manteca, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003032016	A1	20030213
APPLICATION INFO.:	US 2001-918156	A1	20010730 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-440523, filed on 15 Nov 1999, PATENTED Division of Ser. No. US 1997-864473, filed on 28 May 1997, PATENTED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-18532P	19960529 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603
NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Page(s)
LINE COUNT: 4257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the detection of nucleic acid sequence differences using coupled ligase detection reaction and polymerase chain reaction. One aspect of the present invention involves use of a ligase detection reaction coupled to a polymerase chain reaction. Another aspect of the present invention relates to the use of a primary polymerase chain reaction coupled to a secondary polymerase chain reaction coupled to a ligase detection reaction. A third aspect of the present invention involves a primary polymerase chain reaction coupled to a secondary polymerase chain reaction. Such coupling of the ligase detection reaction and the polymerase chain reaction permits multiplex detection of nucleic acid sequence differences.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 9 OF 53 USPATFULL
ACCESSION NUMBER: 2003:4083 USPATFULL
TITLE: Nucleotide triphosphates and their incorporation into oligonucleotides
INVENTOR(S): Beigelman, Leonid, Longmont, CO, UNITED STATES
Burgin, Alex, San Diego, CA, UNITED STATES
Beaudry, Amber, Denver, CO, UNITED STATES
Karpeisky, Alexander, Lafayette, CO, UNITED STATES
Matulic-Adamic, Jasenka, Boulder, CO, UNITED STATES
Sweedler, David, Louisville, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003004122	A1	20030102
APPLICATION INFO.:	US 2001-825805	A1	20010404 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-578223, filed on 23 May 2000, PENDING Continuation-in-part of Ser. No. US 1999-476387, filed on 30 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-474432, filed on 29 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-301511, filed on 28 Apr 1999, PENDING Continuation-in-part of Ser. No. US 1998-186675, filed

on 4 Nov 1998, GRANTED, Pat. No. US 6127535

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-83727P	19980429 (60)
	US 1997-64866P	19971105 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606
NUMBER OF CLAIMS: 90
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 33 Drawing Page(s)
LINE COUNT: 5252
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel nucleotide triphosphates, methods of synthesis and process of incorporating these nucleotide triphosphates into oligonucleotides, and isolation of novel nucleic acid catalysts (e.g., ribozymes or DNAzymes). Also, provided are the use of novel enzymatic nucleic acid molecules to inhibit HER2/neu/ErbB2 gene expression and their applications in human therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 10 OF 53 USPATFULL
ACCESSION NUMBER: 2003:60295 USPATFULL
TITLE: Synthetic ribonucleic acids with RNAse activity
INVENTOR(S): Beigelman, Leonid, Broomfield, CO, United States
Burgin, Alex, Chula Vista, CA, United States
Beaudry, Amber, Broomfield, CO, United States
Karpeisky, Alexander, Lafayette, CO, United States
Matulic-Adamic, Jasenka, Boulder, CO, United States
Sweedler, David, Louisville, CO, United States
Zinnen, Shawn, Denver, CO, United States
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, incorporated, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6528640	B1	20030304
APPLICATION INFO.:	US 1999-474432		19991229 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-301511, filed on 28 Apr 1999 Continuation-in-part of Ser. No. US 1998-186675, filed on 4 Nov 1998, now patented, Pat. No. US 6127535

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-83727P	19980429 (60)
	US 1997-64866P	19971105 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Geist, Gary
ASSISTANT EXAMINER: Crane, L. E.
LEGAL REPRESENTATIVE: McDonnell Boehnen Hulbert & Berghoff
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1,2
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 21 Drawing Page(s)
LINE COUNT: 3964
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel nucleotide triphosphates, methods of synthesis and process of incorporating these nucleotide triphosphates into oligonucleotides, and isolation of novel nucleic acid catalysts (e.g., ribozymes) are disclosed. Also, described are the use of novel enzymatic nucleic acid molecules to inhibit HER2/neu/ErbB2 gene expression and their

applications in human therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 11 OF 53 USPATFULL

ACCESSION NUMBER:	2002:314651 USPATFULL			
TITLE:	Compositions and methods for detecting human immunodeficiency virus 2 (HIV-2)			
INVENTOR(S):	Yang, Yeasing Y., San Diego, CA, UNITED STATES Burrell, Terrie A., San Diego, CA, UNITED STATES			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002177127	A1	20021128	
APPLICATION INFO.:	US 2001-1407	A1	20011022	(10)
	NUMBER		DATE	
PRIORITY INFORMATION:	US 2000-242620P		20001023	(60)
	US 2001-280058P		20010330	(60)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	GEN PROBE INCORPORATED, 10210 GENETIC CENTER DRIVE, SAN DIEGO, CA, 92121			
NUMBER OF CLAIMS:	56			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	1 Drawing Page(s)			
LINE COUNT:	2196			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for synthesizing and detecting HIV-2 specific amplicons. Particularly described are oligonucleotides that are useful as hybridization probes, and amplification primers that facilitate detection of very low levels of HIV-2 nucleic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 12 OF 53 USPATFULL

ACCESSION NUMBER:	2002:272801 USPATFULL			
TITLE:	Compositions and methods for the therapy and diagnosis of colon cancer			
INVENTOR(S):	Stolk, John A., Bothell, WA, UNITED STATES Xu, Jiangchun, Bellevue, WA, UNITED STATES Chenault, Ruth A., Seattle, WA, UNITED STATES Meagher, Madeleine Joy, Seattle, WA, UNITED STATES			
PATENT ASSIGNEE(S):	Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002150922	A1	20021017	
APPLICATION INFO.:	US 2001-998598	A1	20011116	(9)
	NUMBER		DATE	
PRIORITY INFORMATION:	US 2001-304037P		20010710	(60)
	US 2001-279670P		20010328	(60)
	US 2001-267011P		20010206	(60)
	US 2000-252222P		20001120	(60)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092			
NUMBER OF CLAIMS:	17			
EXEMPLARY CLAIM:	1			
LINE COUNT:	9233			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 13 OF 53 USPATFULL

ACCESSION NUMBER: 2002:243051 USPATFULL

TITLE: Compositions and methods for the therapy and diagnosis of ovarian cancer

INVENTOR(S): Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES

PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002132237	A1	20020919	
APPLICATION INFO.:	US 2001-867701	A1	20010529	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-207484P	20000526 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

NUMBER OF CLAIMS: 11

EXEMPLARY CLAIM: 1

LINE COUNT: 25718

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 14 OF 53 USPATFULL

ACCESSION NUMBER: 2002:171872 USPATFULL

TITLE: Combinatorial probes and uses therefor

INVENTOR(S): Gibbs, Mark John, Curtin, AUSTRALIA
Gibbs, Adrian John, Yarralumla, AUSTRALIA
Brown, Roger William, O'Connor, AUSTRALIA

PATENT ASSIGNEE(S): The Australian National University, Acton, AUSTRALIA (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002090621	A1	20020711	
APPLICATION INFO.:	US 2001-916808	A1	20010727	(9)

	NUMBER	DATE

PRIORITY INFORMATION: AU 2000-9026 20000727
AU 2000-9483 20000817
US 2000-226212P 20000818 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P., ONE COMMERCE SQUARE, 2005 MARKET STREET, SUITE 2200, PHILADELPHIA, PA, 19103
NUMBER OF CLAIMS: 33
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Page(s)
LINE COUNT: 2118
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A set of oligonucleotide probes and method are disclosed for detecting a plurality of different target polynucleotides. The set includes a collection of different promiscuous probes each of which is capable of hybridizing to a target sequence shared between at least two of the target polynucleotides. At least one target polynucleotide comprises at least one target sequence that is shared with one or more other target polynucleotides. A predefined combination of promiscuous probes is capable of hybridizing to target sequences of said at least one target polynucleotide, wherein said predefined combination of probes provides specificity of detection of that target polynucleotide. Also disclosed are processes of identifying a set of target sequences for designing the set of oligonucleotide probes of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 15 OF 53 USPATFULL
ACCESSION NUMBER: 2002:133961 USPATFULL
TITLE: HPV-SPECIFIC OLIGONUCLEOTIDES
INVENTOR(S): ROBERTS, PETER C., HOLLISTON, MA, UNITED STATES
FRANK, BRUCE L., MARLBOROUGH, MA, UNITED STATES
SZYMKOWSKI, DAVID E., NORTH MYMMS, UNITED KINGDOM
MILLS, JOHN S., WELWYN GARDEN C, UNITED KINGDOM
GOODCHILD, JOHN, WESTBOROUGH, MA, UNITED STATES
WOLFE, JIA L., SOMERVILLE, MA, UNITED STATES
KILKUSKIE, ROBERT E., SHREWSBURY, MA, UNITED STATES
GREENFIELD, ISOBEL M., ST. ALBANS, UNITED KINGDOM
SULLIVAN, VERONICA, ST. ALBANS, UNITED KINGDOM

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002068820	A1	20020606	
	US 6509149	B2	20030121	
APPLICATION INFO.:	US 1995-471974	A1	19950606	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Dike, Bronstein, Roberts & Cushman, Intellectual Property Practice Group, EWARDS & ANGELL, P, O. Box 9169, BOSTON, MA, 02209
NUMBER OF CLAIMS: 119
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Page(s)
LINE COUNT: 1708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses synthetic oligonucleotides complementary to a nucleic acid spanning the translational start site of human papillomavirus gene E1, and including at least 15 nucleotides. Also disclosed are methods and kits for inhibiting the replication of HPV, for inhibiting the expression of HPV nucleic acid and protein, for detection of HPV, and for treating HPV infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 16 OF 53 USPATFULL
ACCESSION NUMBER: 2002:340247 USPATFULL
TITLE: Methods and compositions for cDNA synthesis
INVENTOR(S): Miller, Jeffrey E., 10828 Red Rock Dr., Scripps Ranch, CA, United States 92131

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6498025	B1	20021224
APPLICATION INFO.:	US 1994-227476		19940414 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-989851, filed on 9 Dec 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Myers, Carla J.
LEGAL REPRESENTATIVE: Weseman, Esq., James C., The Law Offices of James C. Weseman
NUMBER OF CLAIMS: 69
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 2513
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions for synthesizing cDNA in vivo are disclosed, wherein a synthetic polynucleotide molecule which anneals in vivo to an RNA template molecule is utilized as a primer for reverse transcriptase in vivo.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 17 OF 53 USPATFULL
ACCESSION NUMBER: 2002:304068 USPATFULL
TITLE: Nucleoside triphosphates and their incorporation into oligonucleotides
INVENTOR(S): Beigelman, Leonid, Longmont, CO, United States
Burgin, Alex, Chula Vista, CA, United States
Beaudry, Amber, Broomfield, CO, United States
Karpeisky, Alexander, Lafayette, CO, United States
Matulic-Adamic, Jasenka, Boulder, CO, United States
Sweedler, David, Louisville, CO, United States
Zinnen, Shawn, Denver, CO, United States
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Incorporated, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6482932	B1	20021119
APPLICATION INFO.:	US 1999-301511		19990428 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-186675, filed on 4 Nov 1998, now patented, Pat. No. US 6127535

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-83727P	19980429 (60)
	US 1997-64866P	19971105 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Richter, Johann
ASSISTANT EXAMINER: Crane, Lawrence E
LEGAL REPRESENTATIVE: McDonnell Boehnen Hulbert & Berghoff
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel nucleotide triphosphates, methods of synthesis and process of

incorporating these nucleotide triphosphates into oligonucleotides, and isolation of novel nucleic acid catalysts (e.g., ribozymes) are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 18 OF 53 USPATFULL

ACCESSION NUMBER:	2002:268860 USPATFULL
TITLE:	Compounds for immunotherapy of prostate cancer and methods for their use
INVENTOR(S):	Xu, Jiangchun, Bellevue, WA, United States Dillon, Davin C., Redmond, WA, United States Mitcham, Jennifer Lynn, Redmond, WA, United States
PATENT ASSIGNEE(S):	Corixa Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6465611	B1	20021015
APPLICATION INFO.:	US 1999-232149		19990115 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-159812, filed on 23 Sep 1998 Continuation-in-part of Ser. No. US 1998-115453, filed on 14 Jul 1998 Continuation-in-part of Ser. No. US 1998-30607, filed on 25 Feb 1998, now patented, Pat. No. US 6262245 Continuation-in-part of Ser. No. US 1998-20956, filed on 9 Feb 1998, now patented, Pat. No. US 6261562 Continuation-in-part of Ser. No. US 1997-904804, filed on 1 Aug 1997, now abandoned Continuation-in-part of Ser. No. US 1997-806099, filed on 25 Feb 1997, now abandoned

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Horlick, Kenneth R.
ASSISTANT EXAMINER:	Kim, Young
LEGAL REPRESENTATIVE:	SEED Law Group PLLC
NUMBER OF CLAIMS:	6
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT:	6495

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for treating prostate cancer are provided. The inventive compounds include polypeptides containing at least a portion of a prostate tumor protein. Vaccines and pharmaceutical compositions for immunotherapy of prostate cancer comprising such polypeptides, or DNA molecules encoding such polypeptides, are also provided, together with DNA molecules for preparing the inventive polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 19 OF 53 USPATFULL

ACCESSION NUMBER:	2002:75203 USPATFULL
TITLE:	Circular DNA vectors for synthesis of RNA and DNA
INVENTOR(S):	Kool, Eric T., Stanford, CA, United States
PATENT ASSIGNEE(S):	University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6368802	B1	20020409
APPLICATION INFO.:	US 2000-569344		20000511 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-805631, filed on 26 Feb 1997, now patented, Pat. No. US 6096880 Continuation-in-part of Ser. No. US 1995-393439, filed on 23 Feb 1995, now patented, Pat. No. US 5714320 Continuation-in-part of Ser. No. US 1993-47860, filed

on 15 Apr 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: McGarry, Sean
LEGAL REPRESENTATIVE: Mueting, Raasch & Gebhardt, P.A.
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 2896
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for synthesis and therapeutic use of DNA and RNA oligonucleotides and analogs. RNA oligonucleotides are synthesized using a small, circular DNA template which lacks an RNA polymerase promoter sequence. The RNA synthesis is performed by combining a circular single-stranded oligonucleotide template with an effective RNA polymerase and at least two types of ribonucleotide triphosphate to form an RNA oligonucleotide multimer comprising multiple copies of the desired RNA oligonucleotide sequence. Preferably, the RNA oligonucleotide multimer is cleaved to produce RNA oligonucleotides having well-defined ends. Preferred RNA oligonucleotide multimers contain ribozymes capable of both cis (autolytic) and trans cleavage.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 20 OF 53 USPATFULL
ACCESSION NUMBER: 2002:57574 USPATFULL
TITLE: In vitro ribosome evolution
INVENTOR(S): Green, Rachel, Baltimore, MD, United States
PATENT ASSIGNEE(S): Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6358713	B1	20020319	
APPLICATION INFO.:	US 2000-547537		20000412	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-128848P	19990412 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Campbell, Eggerton A.
LEGAL REPRESENTATIVE: Fish & Richardson, P.C.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 984
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for selecting rRNA variants that catalyze formation of non-standard polymers are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 21 OF 53 USPATFULL
ACCESSION NUMBER: 2001:123391 USPATFULL
TITLE: HPV-SPECIFIC OLIGONUCLEOTIDES
INVENTOR(S): ROBERT, PETER C, HOLLISTON, MA, United States
FRANK, BRUCE L., MARLBOROUGH, MA, United States
SZYMKOWSKI, DAVID E., MOUNTAIN VIEW, CA, United States
MILLS, JOHN S., WELWYN GARDEN CITY, Great Britain
GOODCHILD, JOHN, WESTBOROUGH, MA, United States
WOLFE, JIA L., SOMERVILLE, MA, United States
KILKUSKIE, ROBERT E., SHREWSBURY, MA, United States
GREENFIELD, ISOBEL M., ST. ALBANS, Great Britain
SULLIVAN, VERONIA, ST. ALBANS, Great Britain

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001010899	A1	20010802
	US 6458940	B2	20021001
APPLICATION INFO.:	US 1997-887497	A1	19970702 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-471974, filed on 6 Jun 1995, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21041P	19960702 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PETER F. CORLESS, DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP, 130 WATER STREET, BOSTON, MA, 02109
NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Page(s)
LINE COUNT: 2758
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses synthetic oligonucleotides complementary to a nucleic acid spanning the translational start site of human papillomavirus gene E1, and including at least 15 nucleotides. Also disclosed are methods and kits for inhibiting the replication of HPV, for inhibiting the expression of HPV nucleic acid and protein, for detection of HPV, and for treating HPV infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 22 OF 53 USPATFULL
ACCESSION NUMBER: 2001:220832 USPATFULL
TITLE: Methods for detecting target nucleic acid sequences
INVENTOR(S): Whitcombe, David Mark, Northwich, United Kingdom
Theaker, Jane, Northwich, United Kingdom
Gibson, Neil James, Northwich, United Kingdom
Little, Stephen, Northwich, United Kingdom
PATENT ASSIGNEE(S): Zeneca Limited, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6326145	B1	20011204
APPLICATION INFO.:	US 1998-200232		19981125 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-12768	19980613

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Fredman, Jeffrey
ASSISTANT EXAMINER: Tung, Joyce
LEGAL REPRESENTATIVE: Rothwell, Figg, Ernst & Manbeck
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 42 Drawing Figure(s); 42 Drawing Page(s)
LINE COUNT: 972
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for the detection of a target nucleic acid, which method comprises contacting template nucleic acid from a sample with (i) a signalling system and (ii) a tailed nucleic acid primer having a template binding region and the tail comprising a linker and a target binding region, in the presence of appropriate nucleoside triphosphates and an agent for polymerization thereof, under conditions such that the template binding region of the primer will hybridize to a complementary sequence in the template nucleic acid and be extended to form a primer

extension product, separating any such product from the template whereupon the target binding region in the tail of the primer will hybridize to a sequence in the primer extension product corresponding to the target nucleic acid, and wherein any such target specific hybridization causes a detectable change in the signalling system, such that the presence or absence of the target nucleic acid in the sample is detected by reference to the presence or absence of a detectable change in the signalling system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 23 OF 53 USPATFULL

ACCESSION NUMBER:	2001:121255 USPATFULL
TITLE:	Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions
INVENTOR(S):	Barany, Francis, 450 E. 63rd St., New York, NY, United States 10021 Lubin, Matthew, 20 Magnolia Dr., Rye Brook, NY, United States 10573-1820 Belgrader, Phillip, 719 Pebble Way, Manteca, CA, United States 95336

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6268148	B1	20010731
APPLICATION INFO.:	US 1999-440523		19991115 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-864473, filed on 28 May 1997, now patented, Pat. No. US 6027889		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-18532P	19960529 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Horlick, Kenneth R.
LEGAL REPRESENTATIVE:	Nixon Peabody LLP
NUMBER OF CLAIMS:	26
EXEMPLARY CLAIM:	23
NUMBER OF DRAWINGS:	45 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT:	3653

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the detection of nucleic acid sequence differences using coupled ligase detection reaction and polymerase chain reaction. One aspect of the present invention involves use of a ligase detection reaction coupled to a polymerase chain reaction. Another aspect of the present invention relates to the use of a primary polymerase chain reaction coupled to a secondary polymerase chain reaction coupled to a ligase detection reaction. A third aspect of the present invention involves a primary polymerase chain reaction coupled to a secondary polymerase chain reaction. Such coupling of the ligase detection reaction and the polymerase chain reaction permits multiplex detection of nucleic acid sequence differences.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 24 OF 53 USPATFULL

ACCESSION NUMBER:	2001:82916 USPATFULL
TITLE:	Synthesis of sulfurized 2'-substituted oligonucleotides
INVENTOR(S):	Cole, Douglas L., San Diego, CA, United States Ravikumar, Vasulinga T., Carlsbad, CA, United States Cheruvallath, Zacharia S., San Diego, CA, United States
PATENT ASSIGNEE(S):	Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION:	US 6242591	B1	20010605
APPLICATION INFO.:	US 2000-481486		20000111 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-950779, filed on 15 Oct 1997, now patented, Pat. No. US 6114519		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Geist, Gary		
ASSISTANT EXAMINER:	Crane, L. E.		
LEGAL REPRESENTATIVE:	Woodcock Washburn Kurtz Mackiewicz & Norris LLP		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	774		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for the formation of sulfurized oligonucleotides are provided. The methods allow for the formation of phosphorothioate linkages in the oligonucleotides or derivatives, without the need for complex solvent mixtures and repeated washing or solvent changes. Oligonucleotides having from about 8, and up to about 50, nucleotides can be sulfuiized according to the methods of the invention with higher yields than have been previously reported.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 25 OF 53 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 1

ACCESSION NUMBER:	2002082906 EMBASE
TITLE:	Mapping 2'-O-methyl groups in ribosomal RNA.
AUTHOR:	Edward B.; Maden H.
CORPORATE SOURCE:	H. Maden, School of Biological Sciences, University of Liverpool, Life Sciences Building, Crown Street, Liverpool L69 7ZB, United Kingdom. foulkesb@liv.ac.uk
SOURCE:	Methods, (2001) 25/3 (374-382). Refs: 38 ISSN: 1046-2023 CODEN: MTHDE
COUNTRY:	United States
DOCUMENT TYPE:	Journal; Conference Article
FILE SEGMENT:	022 Human Genetics 029 Clinical Biochemistry
LANGUAGE:	English
SUMMARY LANGUAGE:	English

AB Ribosomal RNAs (rRNAs) from all sources contain modified nucleosides, whose numbers range from a few in mitochondrial rRNA to more than 200 in the complete rRNAs of some higher eukaryotes. In eukaryotic rRNA the great majority of modified nucleosides are 2'-O-methylated nucleosides or pseudouridines. The locations of most of the 2'-O-methylated nucleosides in rRNA from some representative eukaryotes are known from studies whose aim was full characterization of rRNA methylation. More recently, and particularly in connection with the discovery of methylation guide RNAs, it is often required to check for the presence or absence of **2'-O-methyl** nucleosides at specified locations within rRNA. Three methods that can be applied for such "local" objectives are reviewed. Two of the methods are based on **primer** extension by reverse transcriptase. They exploit, respectively, a tendency of **2'-O-methyl** groups to impede reverse transcriptase at low dNTP concentrations, or the resistance of phosphodiester bonds adjacent to **2'-O-methyl** groups to alkaline hydrolysis. Examples of these methods are summarized. Although the two methods are relatively straightforward, they suffer from various experimental limitations, as discussed. The third method is technically more sophisticated but is capable of overcoming the limitations of the first two methods. It is based on the resistance of a target 2'-O-methylated site to cleavage by RNase H when the site is hybridized to an appropriate chimeric oligonucleotide. An overview of the approaches and methods now available for the complete mapping of **2'-O-methyl** groups in rRNA is presented. .COPYRGT. 2001 Elsevier

Science.

L2 ANSWER 26 OF 53 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2002036235 MEDLINE
DOCUMENT NUMBER: 21604182 PubMed ID: 11763347
TITLE: Inhibition of HIV-1 replication in vitro and in human infected cells by modified antisense oligonucleotides targeting the tRNALys3/RNA initiation complex.
AUTHOR: Freund F; Boulme F; Michel J; Ventura M; Moreau S; Litvak S
CORPORATE SOURCE: UMR-5097 CNRS-Universite Victor Segalen Bordeaux 2, France.
SOURCE: ANTISENSE AND NUCLEIC ACID DRUG DEVELOPMENT, (2001 Oct) 11 (5) 301-15.
Journal code: 9606142. ISSN: 1087-2906.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 20020124
Last Updated on STN: 20020510
Entered Medline: 20020509

AB The untranslated 5' leader region of the human immunodeficiency virus type 1 (HIV-1) RNA plays an essential role in retroviral replication. It is the first retrotranscribed RNA region, primed from a cellular tRNALys3 partially annealed to the HIV-1 primer binding site (PBS). The structural and functional features of the HIV-1 reverse transcription initiation complex have been thoroughly studied. In this work, we used chemically modified antisense oligonucleotides (AS-ODN) as competitors of the natural tRNALys3 primer for the PBS region. Modified 2'-O-methyl AS-ODN were able to inhibit in vitro HIV-1 reverse transcription and displace the tRNALys3 previously annealed to the PBS. The destabilization of the initiation complex by 2'-O-methyl ODN was a sequence-specific process. We further demonstrated the importance of an anchor region contiguous to the PBS in the annealing of the antisense molecule, allowing the displacement of tRNALys3. The 20-mer **2'-O-methyl** molecules were also able to inhibit viral replication in HIV-1-human infected cells, either by blocking cDNA synthesis during the early phase or by interfering with the annealing of the tRNALys3 **primer** to the PBS during the late phase of the viral cycle. Thus, the highly conserved retroviral initiation complex was shown to be a promising target when using the antisense strategy.

L2 ANSWER 27 OF 53 USPATFULL
ACCESSION NUMBER: 2000:142135 USPATFULL
TITLE: De novo polynucleotide synthesis using rolling templates
INVENTOR(S): Hiatt, Andrew C., 660 Torrance St., San Diego, CA, United States 92103
Rose, Floyd D., 117 Via de la Valle, Del Mar, CA, United States 92014

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6136568		20001024
APPLICATION INFO.:	US 1997-929856		19970915 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Riley, Jezia
LEGAL REPRESENTATIVE: Lerner, David, Littenberg, Krumholz & Mentlik, LLP
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 2778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a method for synthesizing polynucleotide molecules such as

genes or gene segments. A primer having 5' and 3' ends is incubated with a relatively shorter template having a 5' region non-complementary to the primer, a 3' region complementary to the 3' end of the primer, and a non-reactive 3' terminus to allow the 3' region of the template to anneal to the primer. The annealed product is reacted with at least one nucleotide in the presence of a template-dependent polynucleotide polymerase to produce a primer extended at its 3' end by at least one nucleotide complementary to the 5' region of the template. The extended primer is then dissociated from the template. The extended primer is further extended by repeating this cycle for sufficient cycles, wherein the templates and enzymes may differ from cycle to cycle, to obtain the object polynucleotide. Also disclosed are template libraries and kits containing said libraries for use in conjunction with the polynucleotide synthesis method.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 28 OF 53 USPATFULL

ACCESSION NUMBER:	2000:134705 USPATFULL
TITLE:	Method for amplifying target nucleic acids using modified primers
INVENTOR(S):	Becker, Michael M., San Diego, CA, United States Majlessi, Mehrdad, San Diego, CA, United States Brentano, Steven T., Santee, CA, United States
PATENT ASSIGNEE(S):	Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6130038		20001010	
APPLICATION INFO.:	US 1997-893300		19970715	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21818P	19960716 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Elliott, George C.
ASSISTANT EXAMINER:	Shibuya, Mark L.
LEGAL REPRESENTATIVE:	Cappellari, Charles B., Fisher, Carlos A.
NUMBER OF CLAIMS:	15
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT:	2602

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention concerns oligonucleotides containing one or more modified nucleotides which increase the binding affinity of the oligonucleotides to target nucleic acids having a complementary nucleotide base sequence. These modified oligonucleotides hybridize to the target sequence at a faster rate than unmodified oligonucleotides having an identical nucleotide base sequence. Such modified oligonucleotides include oligonucleotides containing at least one 2'-O-methylribofuranosyl moiety joined to a nitrogenous base. Oligonucleotides can be modified in accordance with the present invention to preferentially bind RNA targets. The present invention also concerns methods of using these modified oligonucleotides and kits containing the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 29 OF 53 USPATFULL

ACCESSION NUMBER:	2000:121279 USPATFULL
TITLE:	Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon

INVENTOR(S): Nazarenko, Irina A., Gaithersburg, MD, United States
Bhatnagar, Satish K., Gaithersburg, MD, United States
Winn-Deen, Emily S., Potomac, MD, United States
Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S): Intergen Company, Purchase, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6117635		20000912
APPLICATION INFO.:	US 1997-837034		19970411 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-778487, filed on 3 Jan 1997, now patented, Pat. No. US 5866336 which is a continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Marschel, Ardin H.
ASSISTANT EXAMINER: Tung, Joyce
LEGAL REPRESENTATIVE: Foley & Lardner
NUMBER OF CLAIMS: 104
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 30 Drawing Figure(s); 39 Drawing Page(s)
LINE COUNT: 4107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides labeled nucleic acid amplification oligonucleotides, which can be linear or hairpin primers or blocking oligonucleotides. The oligonucleotides of the invention are labeled with donor and/or acceptor moieties of molecular energy transfer pairs. The moieties can be fluorophores, such that fluorescent energy emitted by the donor is absorbed by the acceptor. The acceptor may be a fluorophore that fluoresces at a wavelength different from the donor moiety, or it may be a quencher. The oligonucleotides of the invention are configured so that a donor moiety and an acceptor moiety are incorporated into the amplification product. The invention also provides methods and kits for directly detecting amplification products employing the nucleic acid amplification primers. When labeled linear primers are used, treatment with exonuclease or by using specific temperature eliminates the need for separation of unincorporated primers. This "closed-tube" format greatly reduces the possibility of carryover contamination with amplification products, provides for high throughput of samples, and may be totally automated.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 30 OF 53 USPATFULL
ACCESSION NUMBER: 2000:98562 USPATFULL
TITLE: Circular DNA vectors for synthesis of RNA and DNA
INVENTOR(S): Kool, Eric T., Rochester, NY, United States
PATENT ASSIGNEE(S): University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6096880		20000801
APPLICATION INFO.:	US 1997-805631		19970226 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-393439, filed on 23 Feb 1995, now patented, Pat. No. US 5714320 which is a continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Elliot, George C.
ASSISTANT EXAMINER: McGarry, Sean
LEGAL REPRESENTATIVE: Mueting, Raasch & Gebhardt, P.A.

NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 3103
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for synthesis, and therapeutic use of DNA and RNA oligonucleotides and analogs. RNA oligonucleotides arc synthesized using a small, circular DNA template which lacks an RNA polymerase promoter sequence. The RNA synthesis is performed by combining a circular single-stranded oligonucleotide template with an effective RNA polymerase and at least two types of ribonucleotide triphosphate to form an RNA oligonucleotide multimer comprising multiple copies of the desired RNA oligonucleotide sequence. Preferably, the RNA oligonucleotide multimer is cleaved to produce RNA oligonucleotides having well-defined ends. Preferred RNA oligonucleotide multimers contain ribozymes capable of both cis (autolytic) and trans cleavage.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 31 OF 53 USPATFULL
ACCESSION NUMBER: 2000:91707 USPATFULL
TITLE: Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon
INVENTOR(S): Nazarenko, Irina A., Gaithersburg, MD, United States
Bhatnagar, Satish K., Gaithersburg, MD, United States
Winn-Deen, Emily S., Potomac, MD, United States
Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S): Intergen Company, Purchase, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090552		20000718
APPLICATION INFO.:	US 1997-891516		19970711 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-837034, filed on 11 Apr 1997 which is a continuation-in-part of Ser. No. US 1997-778487, filed on 3 Jan 1997, now patented, Pat. No. US 5866336 which is a continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Marschel, Ardin H.
ASSISTANT EXAMINER: Tung, Joyce
LEGAL REPRESENTATIVE: Foley & Lardner
NUMBER OF CLAIMS: 103
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 38 Drawing Figure(s); 48 Drawing Page(s)
LINE COUNT: 4617
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides labeled nucleic acid amplification oligonucleotides, which can be linear or hairpin primers or blocking oligonucleotides. The oligonucleotides of the invention are labeled with donor and/or acceptor moieties of molecular energy transfer pairs. The moieties can be fluorophores, such that fluorescent energy emitted by the donor is absorbed by the acceptor. The acceptor may be a fluorophore that fluoresces at a wavelength different from the donor moiety, or it may be a quencher. The oligonucleotides of the invention are configured so that a donor moiety and an acceptor moiety are incorporated into the amplification product. The invention also provides methods and kits for directly detecting amplification products employing the nucleic acid amplification primers. When labeled linear primers are used, treatment with exonuclease or by using specific temperature eliminates the need for separation of unincorporated primers. This "closed-tube" format

greatly reduces the possibility of carryover contamination with amplification products, provides for high throughput of samples, and may be totally automated.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 32 OF 53 USPATFULL

ACCESSION NUMBER:	2000:77184 USPATFULL
TITLE:	Highly sensitive multimeric nucleic acid probes
INVENTOR(S):	Kool, Eric T., Rochester, NY, United States
PATENT ASSIGNEE(S):	University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077668		20000620
APPLICATION INFO.:	US 1997-910632		19970813 (8)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-805631, filed on 26 Feb 1997 And Ser. No. US 1995-393439, filed on 23 Feb 1995, now patented, Pat. No. US 5714320, issued on 3 Feb 1998 which is a continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Brusca, John S.
ASSISTANT EXAMINER:	McGarry, Sean
LEGAL REPRESENTATIVE:	Mueting, Raasch & Gebhardt, P.A.
NUMBER OF CLAIMS:	66
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT:	3477

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides detectably labeled RNA and DNA oligonucleotide multimers useful as diagnostic probes in medical, biological and chemical applications. A method for synthesizing DNA and RNA oligonucleotides, oligonucleotide multimers, and analogs, preferably those that are detectably labeled, is also provided. Oligonucleotide synthesis is performed by combining a circular single-stranded oligonucleotide template with an effective polymerase and at least two types of nucleotide triphosphate, without the addition of auxiliary proteins, to yield an oligonucleotide multimer comprising multiple copies of a repeated oligonucleotide sequence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 33 OF 53 USPATFULL

ACCESSION NUMBER:	2000:21383 USPATFULL
TITLE:	Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions
INVENTOR(S):	Barany, Francis, New York, NY, United States Lubin, Matthew, Rye Brook, NY, United States
PATENT ASSIGNEE(S):	Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6027889		20000222
APPLICATION INFO.:	US 1997-864473		19970528 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-18532P	19960529 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Horlick, Kenneth R.

LEGAL REPRESENTATIVE: Nixon, Hargrave, Devans & Doyle LLP
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 45 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT: 4414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the detection of nucleic acid sequence differences using coupled ligase detection reaction and polymerase chain reaction. One aspect of the present invention involves use of a ligase detection reaction coupled to a polymerase chain reaction. Another aspect of the present invention relates to the use of a primary polymerase chain reaction coupled to a secondary polymerase chain reaction coupled to a ligase detection reaction. A third aspect of the present invention involves a primary polymerase chain reaction coupled to a secondary polymerase chain reaction. Such coupling of the ligase detection reaction and the polymerase chain reaction permits multiplex detection of nucleic acid sequence differences.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 34 OF 53 USPATFULL
ACCESSION NUMBER: 1999:137028 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Chapel Hill, NC, United States
Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976879		19991102
APPLICATION INFO.:	US 1999-302390		19990430 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-802384, filed on 19 Feb 1997, now patented, Pat. No. US 5916808 which is a continuation of Ser. No. US 1995-453224, filed on 30 May 1995, now patented, Pat. No. US 5627274 which is a division of Ser. No. US 1995-379079, filed on 26 Jan 1995, now patented, Pat. No. US 5665593 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: LeGuyader, John L.
LEGAL REPRESENTATIVE: Myers Bigel Sibley & Sajovec
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 894
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of combatting aberrant splicing in a pre-mRNA molecule containing a mutation is disclosed. When present in the pre-mRNA, the mutation causes the pre-mRNA to splice incorrectly and produce an aberrant mRNA or mRNA fragment different from the mRNA ordinarily encoded by the pre-mRNA. The method comprises hybridizing an antisense oligonucleotide to the pre-mRNA molecule to create a duplex molecule under conditions which permit splicing. The antisense oligonucleotide is one which does not activate RNase H, and is selected to block a member of the aberrant set of splice elements created by the mutation so that the native intron is removed by splicing and the first mRNA molecule encoding a native protein is produced. Oligonucleotides useful for carrying out the method are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 35 OF 53 USPATFULL
ACCESSION NUMBER: 1999:110192 USPATFULL
TITLE: Methods using exogenous, internal controls and analogue blocks during nucleic acid amplification
INVENTOR(S): Aoyagi, Kazuko, Emeryville, CA, United States
Livak, Kenneth J., San Jose, CA, United States
PATENT ASSIGNEE(S): The Perkin Elmer Corporation, Foster City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5952202		19990914	
APPLICATION INFO.:	US 1998-48880		19980326	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Horlick, Kenneth R.
ASSISTANT EXAMINER: Siew, Jeffrey
LEGAL REPRESENTATIVE: Bortner, Scott R.
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1431
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Reporter-quencher probe assays of nucleic acid amplification, such as PCR, are rendered more meaningful by the addition of internal control reagents. An internal control polynucleotide is amplified with internal control primers and the product is measured by correlation with increased fluorescence by polymerase mediated-exonuclease cleavage or hybridization of the internal control probe. Probes specific for target and internal control polynucleotides are labelled with spectrally resolvable reporters, allowing for concurrent detection and measurement of target and control amplification. A kit of all PCR reagents can be dispensed into reaction chambers in a high-throughput system for rapid and accurate nucleic acid amplification assay, with real-time or end-point measurements. Fluorescent signals correlated to target and internal control levels are spectrally resolvable and measured concurrently. A non-extending oligonucleotide or nucleic analog "block", complementary to the internal control polynucleotide, is added to the amplification mixture to preclude amplification of the internal control polynucleotide and function as an internal negative control. The amplification control reagents, kits, and methods of the present invention provide positive and negative control tests occurring within, and measurable within, the reaction chamber.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 36 OF 53 USPATFULL
ACCESSION NUMBER: 1999:72501 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Chapel Hill, NC, United States
Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5916808		19990629	
APPLICATION INFO.:	US 1997-802384		19970219	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-453224, filed on 30 May 1995, now patented, Pat. No. US 5627274 which is a division of Ser. No. US 1995-379079, filed on 26 Jan 1995, now patented, Pat. No. US 5665593 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: LeGuyader, John L.
LEGAL REPRESENTATIVE: Myers Bigel Sibley & Sajovec
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 880
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of combatting aberrant splicing in a pre-mRNA molecule containing a mutation is disclosed. When present in the pre-mRNA, the mutation causes the pre-mRNA to splice incorrectly and produce an aberrant mRNA or mRNA fragment different from the mRNA ordinarily encoded by the pre-mRNA. The method comprises hybridizing an antisense oligonucleotide to the pre-mRNA molecule to create a duplex molecule under conditions which permit splicing. The antisense oligonucleotide is one which does not activate RNase H, and is selected to block a member of the aberrant set of splice elements created by the mutation so that the native intron is removed by splicing and the first mRNA molecule encoding a native protein is produced. Oligonucleotides useful for carrying out the method are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 37 OF 53 USPATFULL
ACCESSION NUMBER: 1999:15694 USPATFULL
TITLE: Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon
INVENTOR(S): Nazarenko, Irina A., Gaithersburg, MD, United States
Bhatnagar, Satish K., Gaithersburg, MD, United States
Winn-Deen, Emily S., Potomac, MD, United States
Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S): Oncor, Inc., Gaithersburg, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5866336		19990202
APPLICATION INFO.:	US 1997-778487		19970103 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Horlick, Kenneth R.
ASSISTANT EXAMINER: Tung, Joyce
LEGAL REPRESENTATIVE: Cohen, Jonathan M.Oncor, Inc.
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 46 Drawing Figure(s); 34 Drawing Page(s)
LINE COUNT: 3045
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides labeled nucleic acid amplification oligonucleotides, which can be linear or hairpin primers or blocking oligonucleotides. The oligonucleotides of the invention are labeled with donor and/or acceptor moieties of molecular energy transfer pairs. The moieties can be fluorophores, such that fluorescent energy emitted by the donor is absorbed by the acceptor. The acceptor may be a fluorophore that fluoresces at a wavelength different from the donor moiety, or it may be a quencher. The oligonucleotides of the invention are configured so that a donor moiety and an acceptor moiety are incorporated into the amplification product. The invention also provides methods and kits for directly detecting amplification products employing the nucleic acid amplification primers. When labeled linear primers are used, treatment with exonuclease or by using specific temperature eliminates the need

for separation of unincorporated primers. This "closed-tube" format greatly reduces the possibility of carryover contamination with amplification products, provides for high throughput of samples, and may be totally automated.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 38 OF 53 USPATFULL

ACCESSION NUMBER:	1999:1787 USPATFULL
TITLE:	Oligonucleotides specific for hepatitis B virus
INVENTOR(S):	Frank, Bruce L., Marlborough, MA, United States Roberts, Peter C., Holliston, MA, United States Goodchild, John, Westborough, MA, United States Craig, J. Charles, Welwyn Garden, United Kingdom Mills, John S., Welwyn Garden, United Kingdom
PATENT ASSIGNEE(S):	Hybridon, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5856459		19990105
APPLICATION INFO.:	US 1995-468352		19950606 (8)

RELATED APPLN. INFO.:	Division of Ser. No. US 1995-467397, filed on 6 Jun 1995, now abandoned
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Ketter, James
ASSISTANT EXAMINER:	Brusca, John S.
LEGAL REPRESENTATIVE:	Hale and Dorr LLP
NUMBER OF CLAIMS:	21
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT:	1710

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses synthetic oligonucleotides complementary to contiguous and noncontiguous regions of the HBV RNA. Also disclosed are methods and kits for inhibiting the replication and expression of HBV, and for treating HBV infections and associated conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 39 OF 53 USPATFULL

ACCESSION NUMBER:	1998:154041 USPATFULL
TITLE:	Methods for detecting the RNA component of telomerase
INVENTOR(S):	Kim, Nam Woo, San Jose, CA, United States Wu, Fred, San Carlos, CA, United States Kealey, James T., San Anselmo, CA, United States Pruzan, Ronald, Palo Alto, CA, United States Weinrich, Scott L., Redwood City, CA, United States
PATENT ASSIGNEE(S):	Geron Corporation, Menlo Park, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5846723		19981208
APPLICATION INFO.:	US 1996-770565		19961220 (8)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Jones, W. Gary
ASSISTANT EXAMINER:	Rees, Dianne
LEGAL REPRESENTATIVE:	Kaster, Kevin R., Storella, John R., Parent, Annette S.
NUMBER OF CLAIMS:	38
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT:	1685

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods of detecting the RNA component of telomerase, diagnosing cancer, and determining its prognosis using polynucleotides that hybridize to the RNA component of mammalian telomerase in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 40 OF 53 USPATFULL

ACCESSION NUMBER: 1998:11870 USPATFULL

TITLE: Rolling circle synthesis of oligonucleotides and amplification of select randomized circular oligonucleotides

INVENTOR(S): Kool, Eric T., Rochester, NY, United States

PATENT ASSIGNEE(S): University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5714320		19980203
APPLICATION INFO.:	US 1995-393439		19950223 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Jones, W. Gary

ASSISTANT EXAMINER: Rees, Dianne

LEGAL REPRESENTATIVE: Mueting, Raasch, Gebhardt & Schwappach, P.A.

NUMBER OF CLAIMS: 47

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 2583

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for synthesis, selection, and amplification of DNA and RNA oligonucleotides and analogs. The method for synthesizing an oligonucleotide involves: providing an effective amount of an isolated circular oligonucleotide template which comprises at least one copy of the desired oligonucleotide sequence linked to a cleavage site; providing an effective amount of an isolated oligonucleotide primer; annealing the primer to the circular template to form a primed circular template; and combining the primed circular template with an effective amount of at least two types of nucleotide triphosphates and an effective amount of a polymerase enzyme to form a nucleotide multimer complementary to the circular oligonucleotide template, wherein the nucleotide multimer comprises multiple copies of the oligonucleotide sequence joined end to end. Preferably, the nucleotide multimer is cleaved to produce oligonucleotides having well-defined ends.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 41 OF 53 USPATFULL

ACCESSION NUMBER: 97:81145 USPATFULL

TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same

INVENTOR(S): Kole, Ryszard, Orange County, NC, United States
Dominski, Zbigniew, Orange County, NC, United States

PATENT ASSIGNEE(S): University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5665593		19970909
APPLICATION INFO.:	US 1995-379079		19950126 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rories, Charles C. P.
LEGAL REPRESENTATIVE: Bell, Seltzer, Park & Gibson
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 865
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of combatting aberrant splicing in a pre-mRNA molecule containing a mutation is disclosed. When present in the pre-mRNA, the mutation causes the pre-mRNA to splice incorrectly and produce an aberrant mRNA or mRNA fragment different from the mRNA ordinarily encoded by the pre-mRNA. The method comprises hybridizing an antisense oligonucleotide to the pre-mRNA molecule to create a duplex molecule under conditions which permit splicing. The antisense oligonucleotide is one which does not activate RNase H, and is selected to block a member of the aberrant set of splice elements created by the mutation so that the native intron is removed by splicing and the first mRNA molecule encoding a native protein is produced. Oligonucleotides useful for carrying out the method are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 42 OF 53 USPATFULL
ACCESSION NUMBER: 97:38617 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Chapel Hill, NC, United States
Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5627274		19970506
APPLICATION INFO.:	US 1995-453224		19950530 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-379079, filed on 26 Jan 1995 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rories, Charles C. P.
LEGAL REPRESENTATIVE: Bell, Seltzer, Park & Gibson
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 834
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of combatting aberrant splicing in a pre-mRNA molecule containing a mutation is disclosed. When present in the pre-mRNA, the mutation causes the pre-mRNA to splice incorrectly and produce an aberrant mRNA or mRNA fragment different from the mRNA ordinarily encoded by the pre-mRNA. The method comprises hybridizing an antisense oligonucleotide to the pre-mRNA molecule to create a duplex molecule under conditions which permit splicing. The antisense oligonucleotide is one which does not activate RNase H, and is selected to block a member of the aberrant set of splice elements created by the mutation so that the native intron is removed by splicing and the first mRNA molecule encoding a native protein is produced. Oligonucleotides useful for carrying out the method are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 43 OF 53 USPATFULL

ACCESSION NUMBER: 97:12340 USPATFULL
TITLE: Method for enzymatic synthesis of oligonucleotides
INVENTOR(S): Hyman, Edward D., 2100 Sawmill Rd., River Ridge, LA, United States 70123

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5602000		19970211
APPLICATION INFO.:	US 1995-464778		19950623 (8)

DISCLAIMER DATE: 20121223
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-161224, filed on 2 Dec 1993, now patented, Pat. No. US 5516664, issued on 14 May 1996 Ser. No. Ser. No. US 1993-100671, filed on 30 Jul 1993 And Ser. No. US 1992-995791, filed on 23 Dec 1992, now patented, Pat. No. US 5436143, issued on 25 Jul 1995
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Rees, Dianne
LEGAL REPRESENTATIVE: Oppedahl & Larson
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 2002
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Enzymatic synthesis of oligonucleotides is performed by the steps of: (a) combining a primer and a blocked nucleotide in the presence of a chain extending enzyme to form a primer-blocked nucleotide product containing the blocked nucleotide coupled to the primer at its 3'-end; (b) removing the blocking group from the 3' end of the primer-blocked nucleotide product; and (c) repeating the cycle of steps (a) and (b), using the primer-nucleotide product of step (b) as the primer for step (a) in the next cycle, for sufficient cycles to form the oligonucleotide product. Cycles may optionally include the step of converting any unreacted blocked nucleotide to an unreactive form which is substantially less active as a substrate for the chain extending enzyme. Cycles may also include the step of removing the blocking group from unreacted blocked nucleotide. This step is unnecessary, however, when the same nucleotide is added in two or more successive cycles. The synthetic cycles are preferably performed in a single vessel without intermediate purification of oligonucleotide product.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 44 OF 53 USPATFULL
ACCESSION NUMBER: 97:3689 USPATFULL
TITLE: Amplification of nucleic acid sequences
INVENTOR(S): Bhatnagar, Satish K., Gaithersburg, MD, United States
George, Jr., Albert L., Gaithersburg, MD, United States
Nazarenko, Irina, Gaithersburg, MD, United States
PATENT ASSIGNEE(S): Oncor, Inc., Gaithersburg, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5593840		19970114
APPLICATION INFO.:	US 1995-461823		19950605 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-168621, filed on 16 Dec 1993 which is a continuation-in-part of Ser. No. US 1993-10433, filed on 27 Jan 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Sisson, Bradley L.
ASSISTANT EXAMINER: Fredman, Jeffrey

LEGAL REPRESENTATIVE: Karta, Glenn E.
NUMBER OF CLAIMS: 59
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 2023
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process for amplifying nucleic acid sequences from a DNA or RNA template which may be purified, or may exist in a mixture of nucleic acids. The resulting nucleic acid sequences may be exact copies of the template, or may be modified. The process has advantages over prior art amplification processes in that it increases the fidelity of copying a specific nucleic acid sequence, and it allows one to more efficiently detect a particular point mutation in a single assay.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 45 OF 53 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 3
ACCESSION NUMBER: 96:110873 LIFESCI
TITLE: Antisense oligonucleotides inhibit in vitro cDNA synthesis by HIV-1 reverse transcriptase
AUTHOR: Boiziau, C.; Tarrago-Litvak, L.; Sinha, N.D.; Moreau, S.; Litvak, S.; Toulme, J.-J.
CORPORATE SOURCE: INSERM U386, Lab. de Biophysique Moleculaire, Univ. Bordeaux II 33076 Bordeaux Cedex, France
SOURCE: ANTISENSE NUCLEIC ACID DRUG DEV., (1996) vol. 6, no. 2, pp. 103-109.
ISSN: 1087-2906.
DOCUMENT TYPE: Journal
FILE SEGMENT: N; V; W3
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The inhibition of reverse transcription by various chemically modified antisense oligonucleotides was studied in a cell-free system, composed of an RNA template, a **primer** oligodeoxynucleotide, and the HIV-1 reverse transcriptase (RT). Different mechanisms of inhibition were observed depending on the chemical structure of the antisense molecule. (1) The hybridization of 2'-O-allyl oligonucleotide to the RNA template promotes a physical arrest of the polymerase. (2) The antisense effect of phosphodiester or phosphorothioate oligonucleotides is essentially due to the RNase H-mediated cleavage of the RNA. (3) A third mechanism was observed with phosphorothioate oligonucleotides that directly interact with the enzyme. Chimeric oligonucleotides, composed of an unmodified region flanked by **2'-O-methyl** groups, led to less efficient inhibition than the parent unmodified oligomer, although the inhibitory mechanism was the same. No inhibitory effect was detected when alpha or methylphosphonate oligomers were used.

L2 ANSWER 46 OF 53 USPATFULL
ACCESSION NUMBER: 95:67136 USPATFULL
TITLE: Method for enzymatic synthesis of oligonucleotides
INVENTOR(S): Hyman, Edward D., 2100 Sawmill Rd., Apt. 4-103, River Ridge, LA, United States 70123

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5436143		19950725
APPLICATION INFO.:	US 1992-995791		19921223 (7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Parr, Margaret
ASSISTANT EXAMINER: Marschel, Ardin H.
LEGAL REPRESENTATIVE: Oppendahl & Larson
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 7 Drawing Page(s)

LINE COUNT: 1854
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Enzymatic synthesis of oligonucleotides may be performed in a single vessel without intermediate purification, by the steps of:

(a) combining a nucleotide primer sequence and a blocked nucleotide in the presence of a chain extending enzyme whereby a reaction mixture is formed containing the blocked nucleotide coupled to the nucleotide primer sequence at its 3' end;

(b) inactivating the chain extending enzyme;

(c) removing the blocking group from the primer-blocked nucleotide to form a primer-nucleotide product; and converting any unreacted blocked nucleotide to an unreactive form which is substantially less active as a substrate for the chain extending enzyme than the blocked nucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L2 ANSWER 47 OF 53 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 4
ACCESSION NUMBER: 91212953 EMBASE
DOCUMENT NUMBER: 1991212953
TITLE: Structural analyses of the 7SK ribonucleoprotein (RNP), the most abundant human small RNP of unknown function.
AUTHOR: Wassarman D.A.; Steitz J.A.
CORPORATE SOURCE: Dept. of Molecular Biophysics, Howard Hughes Medical Inst., Yale Univ. School of Medicine, 333 Cedar Street,New Haven, CT 06510-8024, United States
SOURCE: Molecular and Cellular Biology, (1991) 11/7 (3432-3445). ISSN: 0270-7306 CODEN: MCEBD4
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
022 Human Genetics
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The human 7SK ribonucleoprotein (RNP) has been analyzed to determine its RNA secondary structure and protein constituents. HeLa cell 7SK RNA alone and within its RNP have been probed by chemical modification and enzymatic cleavage, and sites of modification or cleavage have been mapped by **primer** extension. The resulting secondary structure suggests that structural determinants necessary for capping (a 5' stem followed by the sequence AUPuUPuC) and nuclear migration (the sequence AUPuUPuC) of 7SK RNA may be similar to those for U6 small nuclear RNA (snRNA). It also supports existence of a 3' stem structure which could serve to self-prime cDNA synthesis during pseudogene formation. Oligonucleotide-directed RNase H digestion indicated regions of 7SK RNA capable of base pairing with other nucleic acids. Antisense **2'-O-methyl** RNA oligonucleotides were used to affinity select the 7SK RNP from an in vivo 35S-labeled cell sonic extract and identify eight associated proteins of 83, 48, 45, 43, 42, 21, 18, and 13 kDa. 7SK RNA has extensive sequence complementarity to U4 snRNA, within the U4/U6 base pairing domain, and also to U11 snRNA. The possibility that the 7SK RNP is an unrecognized component of the pre-mRNA processing machinery is discussed.

L2 ANSWER 48 OF 53 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1983:212781 BIOSIS
DOCUMENT NUMBER: BA75:62781
TITLE: TEMPLATE ACTIVITY OF POLY-2' FLUORO-2'-DEOXY INOSINIC-ACID FOR MURINE LEUKEMIA VIRUS REVERSE TRANSCRIPTASE.
AUTHOR(S): FUKUI T; DE CLERQ E; KAKIUCHI N; IKEHARA M
CORPORATE SOURCE: FACULTY PHARMACEUTICAL SCI., OSAKA UNIV., 133-1 YAMADA-KAMI, SUITA, OSAKA 565, JAPAN.
SOURCE: CANCER LETT, (1982) 16 (2), 129-136. CODEN: CALEDQ. ISSN: 0304-3835.

FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The 2'-substituted analog of poly(I)n, poly(2'-fluoro-2'-deoxyinosinic acid) [(dIfl)n] served as an effective template for the RNA-directed DNA polymerase (reverse transcriptase) from Moloney murine leukemia virus. When assayed under the same conditions, the parent compound (I)n showed little, if any, template activity. In the presence of other templates, i.e., poly(2'-O-methylcytidylic acid), (dIfl)n could also assume the role of primer for the reverse transcriptase reaction, again, (I)n failed to do so.

L2 ANSWER 49 OF 53 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 81054690 MEDLINE
DOCUMENT NUMBER: 81054690 PubMed ID: 6933444
TITLE: Both the 7-methyl and the **2'-O-methyl** groups in the cap of mRNA strongly influence its ability to act as **primer** for influenza virus RNA transcription.
AUTHOR: Bouloy M; Plotch S J; Krug R M
CONTRACT NUMBER: AI 11772 (NIAID)
CA 08748 (NCI)
TW 02590-01 (FIC)
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1980 Jul) 77 (7) 3952-6. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198101
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19970203
Entered Medline: 19810129
AB The ability of eukaryotic mRNAs to serve as primers for influenza virus RNA transcription depends on the presence of a 5'-terminal methylated can structure, the absence of which eliminates essentially all priming activity [Plotch, S. J., Bouloy, M. & Krug, R. M. (1979) Proc. Natl. Acad. Sci. USA 76, 1618-1622]. The present study was undertaken to determine the extent to which each of the methyl groups in the cap influences the priming activity of a mRNA. To assess the importance of the 2'-O-methyl group on the penultimate base of the cap, we used several plant viral RNAs containing the monomethylated cap 0 structure, m7GpppG. Brome mosaic virus (BMV) RNA 4 stimulated influenza virus RNA transcription only about 10-15% as effectively as did globin mRNA, which has a cap with a 2'-O-methyl group. When the cap of BMV RNA 4 was enzymatically 2'-O-methylated, its priming activity was increased 14-fold. Qualitatively similar results were obtained with other plant virus RNAs. To assess the importance of the terminal 7-methyl group, BMV RNA 4 containing the cap structure GpppGm was prepared by a series of chemical and enzymatic steps. These molecules were found to be only about 15% as active in priming as BMV RNA 4 molecules containing the fully methylated cap, m7GpppGm, indicating that the terminal 7-methyl group also strongly enhances priming activity. These results indicate that the cap 1 structure (m7GpppXm) found in all mammalian cellular mRNAs is more stringently required for priming influenza virus RNA transcription than for translation in cell-free systems.

L2 ANSWER 50 OF 53 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1980:127401 BIOSIS
DOCUMENT NUMBER: BA69:2397
TITLE: TOTAL SYNTHESIS OF A TYROSINE SUPPRESSOR TRANSFER RNA GENE 17. TRANSCRIPTION IN-VITRO OF THE SYNTHETIC GENE AND PROCESSING OF THE PRIMARY TRANSCRIPT TO TRANSFER RNA.
AUTHOR(S): SEKIYA T; CONTRERAS R; TAKEYA T; KHORANA H G
CORPORATE SOURCE: BIOL. DIV., NATL. CANCER CENT. RES. INST., TSUKIJI 5-CHOME,

CHUO, TOKYO, JPN.
SOURCE: J BIOL CHEM, (1979) 254 (13), 5802-5816.
CODEN: JBCHA3. ISSN: 0021-9258.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Primer- and promoter-dependent transcription of the synthetic [Escherichia coli] gene was studied. Primer-dependent transcription gave, as a major product, an end-to-end transcript which was strand-specific. The transcript was characterized rigorously by 2-dimensional separation and analysis of the oligonucleotides formed on digestion with T1-RNase and pancreatic RNase and by nearest neighbor analyses of the oligonucleotides obtained when different .alpha.-32P-labeled ribonucleoside triphosphates were used as substrates. Minor products accompanying the major transcript were characterized similarly. The major transcript, when treated with an E. coli S-100 extract, was processed to the tRNATyr with correct 5'- and 3'-ends. The nucleolytic cleavages occurring at the 3'-end were characterized. In promoter-dependent transcription, transcription of a restriction fragment containing .**GRAPHIC**. gene and the synthetic gene with and without the promoter were compared. Transcription of the synthetic gene was promoter-dependent and strand-specific, the initiation of transcription occurring at the same point as previously found in vivo. Although the synthetic gene contains only 16 base pairs corresponding to the natural sequence following the C-C-A end, processing of the transcript at the 3'-end occurred normally, the endonucleolytic cleavage being followed by exonucleolytic cleavages. The products of promoter-dependent transcription were completely characterized. An examination of the base modifications of the primary transcript during treatment of the latter with E. coli S-100 extract showed complete modification of uridine to pseudouridine and partial methylation of uridine to ribosylthymine in T.psi.CG sequence and partial formation of pseudouridine in the anticodon loop. Hardly any formation of 2'-O-methylguanosine or of 2-methylthio-6-isopentenyl adenosine was detected.

L2 ANSWER 51 OF 53 MEDLINE
ACCESSION NUMBER: 78211153 MEDLINE
DOCUMENT NUMBER: 78211153 PubMed ID: 78724
TITLE: Template-specific requirements for DNA synthesis by the Mason-Pfizer monkey virus DNA polymerase: unique aspects.
AUTHOR: Marcus S L; Sarkar N H; Modak M J
SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (1978 Jul 24) 519 (2) 317-30.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197809
ENTRY DATE: Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19780929

AB The biochemical properties of DNA polymerase purified from Mason-Pfizer monkey virus were studied, with respect to synthetic and natural template-primer utilization. Thes studies revealed the following new information about the Mason-Pfizer monkey virus enzyme: (a) Mason-Pfizer monkey virus polymerase was found to prefer template: **primer** molar nucleotide ratios of 2.5-5: 1 for optimal rates of synthesis with poly(C) .(dG)12-18 as template-**primer**. (b) Poly(A)-directed synthesis was stimulated by the addition of low concentrations of inorganic phosphate to the reaction mixture. (c) Poly(**2'-O-methyl**-cytidylate), poly(rCm), was the only template studied for which Mn2+ proved the preferred divalent cation. Combinations of divalent cations stimulated rather than inhibited poly(rCm)-directed poly(dG) synthesis by the Mason-Pfizer monkey virus enzyme. (d) Heteropolymeric regions of rabbit globin mRNA and avian myeloblastosis virus 70 S RNA could be copied by the Mason-Pfizer monkey virus polymerase

with oligo(dT), oligo(U) or in the case of avian myeloblastosis virus RNA, endogenous primers. In all such studies, Mg2+ was the preferred divalent cation and a distinct preference for the DNA primer in the reverse transcription of natural RNAs was observed. These new findings necessitated comparative studies with the DNA polymerases from Rauscher murine leukemia virus and murine mammary tumor virus, as representative type C and type B retroviruses. Although the Mason-Pfizer monkey virus enzyme was found to share some properties in common with both type C and type B mammalian viral enzymes, certain of the above properties rendered it unique among the polymerases examined.

L2 ANSWER 52 OF 53 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.DUPLICATE 6
ACCESSION NUMBER: 78142532 EMBASE
DOCUMENT NUMBER: 1978142532
TITLE: Reovirus specific enzyme(s) associated with subviral particles responds in vitro to polyribocytidylate to yield double stranded polyribocytidylate. polyriboguanylate.
AUTHOR: Gomatos P.J.; Kuechenthal I.
CORPORATE SOURCE: Sloan Kettering Mem. Cancer Cent., New York, N.Y. 10021, United States
SOURCE: Journal of Virology, (1977) 23/1 (80-90).
CODEN: JOVIAM
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 047 Virology
029 Clinical Biochemistry
LANGUAGE: English

AB In reovirus-infected cells, virus-specific particles accumulate that have associated with them a polyribocytidylate [poly(C)]-dependent polymerase. This enzyme copies in vitro poly(C) to yield the double-stranded poly(C)-polyriboguanylate [poly(G)]. The particles with poly(C)-dependent polymerase were heterogeneous in size, with most sedimenting from 300S to 550S. Exponential increase in these particles began at 23 h, and maximal amounts were present by 31 h, the time of onset of exponential growth of virus at 30.degree.C. Maximal amounts of particles with active transcriptase and replicase were present at 15 and 18 h after infection. Thereafter, there was a marked decrease in particles with active transcriptase and replicase until base line levels were reached at 31 h. Thus, the increase in poly(C)-responding particles occurred coincident with the decrease in particles with active transcriptase and replicase. The requirement for poly(C) as template was specific because no RNA was synthesized in vitro in response to any other homopolymer, including **2'-O methyl**-poly(C). Synthesis was optimal in the presence of Mn2+, as the divalent cation, and no **primer** was necessary for synthesis. In contrast, the dinucleotide GpG markedly stimulated synthesis in the presence of 8 mM Mg2+. The size of the poly(C)-poly(G) synthesized in vitro was dependent on the size of the poly(C) used as template. This suggested that the whole template was copied into a complementary strand of similar size. The T(m) of the product was between 100 and 130.degree.C. Hydrolysis of the product labeled in [32P]GMP with alkali or RNase T2 yielded GMP as the only labeled mononucleotide. This does indicate that the synthesis of the poly(G) strand in vitro did not proceed by end addition to the poly(C)template, but proceeded on a separate strand.

L2 ANSWER 53 OF 53 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1975:196551 BIOSIS
DOCUMENT NUMBER: BA60:26547
TITLE: POLY-**2-O METHYL** CYTIDYLATE OLIGO DEOXY GUANYLATE A TEMPLATE **PRIMER** SPECIFIC FOR REVERSE TRANSCRIPTASE IS NOT UTILIZED BY HELA CELL GAMMA DNA POLYMERASES.
AUTHOR(S): GERARD G F
SOURCE: BIOCHEM BIOPHYS RES COMMUN, (1975) 63 (3), 706-711.
CODEN: BBRCA9. ISSN: 0006-291X.

FILE SEGMENT: BA; OLD
LANGUAGE: Unavailable

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L2 ANSWER 6 OF 53 USPATFULL
ACCESSION NUMBER: 2003:64696 USPATFULL
TITLE: Amplification using modified primers
INVENTOR(S): Laird, Walter J., Pinole, CA, UNITED STATES
Niemiec, John T., San Leandro, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003044817	A1	20030306
APPLICATION INFO.:	US 2001-83233	A1	20011024 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-243182P	20001025 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE & EDMONDS LLP, COUNSELLORS AT LAW, 1155 Avenue of the Americas, New York, NY, 10036-2711
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 1272
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0015] In one embodiment, the methods involve the use of a modified **primer** consisting essentially of an oligonucleotide in which at least one of the three 3' terminal nucleotides is a modified nucleotide selected from the group consisting of **2'-O-methyl**-nucleotides, 2'-amino-nucleotides, and 2'-fluoro-nucleotides.

SUMM [0043] The **2'-O-methyl**-ribonucleotides, 2'-deoxy-2'-amino-nucleotides, and 2'-deoxy-2'-fluoro-nucleotides, relative to a typical oligodeoxynucleotide **primer**, contain bulkier side groups bound to C-2 of the sugar. It is likely that the side group sterically interferes with the binding of the enzyme to the **primer**-target duplex, but not enough to preclude extension. This suggests that additional side groups of similar bulk would have a similar. . .

DETD . . . containing additional upstream modified nucleotides, the terminal two or three nucleotides are shown, as needed. Thus, for example, an upstream **primer** identified as 2'omeG refers to a **primer** having sequence SK145+G (SEQ ID NO: 3), wherein the 3' terminal nucleotide is a **2'-O-methyl**-guanosine. Analogously, a upstream **primer** identified as 2'omeA-dA refers to a **primer** having sequence SK145-T (SEQ ID NO: 1), wherein the 3' penultimate nucleotide is a **2'-O-methyl**-adensosine and the 3' terminal nucleotide is an unmodified adenosine.

DETD . . . has a greater impact on the target amplification in a Mg.sup.+2 buffer than in a Mn.sup.+2 buffer. In particular, a **2'-O-methyl**-A at the 3' terminus of the **primer** significantly delays the amplification of target under these reaction conditions.

CLM What is claimed is:

. . . for carrying out a nucleic acid amplification reaction, wherein said kit comprises a pair of primers, wherein a least one **primer** of said pair contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of **2'-O-methyl** nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose

nucleotides.

10. A kit of claim 1, wherein each **primer** of said pair of primers independently contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of **2'-O-methyl** nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.

11. A method for amplifying a nucleic acid target sequence, wherein said method comprises carrying out a **primer**-based amplification reaction in a reaction mixture comprising a pair of primers, wherein a least one **primer** of said pair contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of **2'-O-methyl** nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.

20. A method of claim 11, wherein each **primer** of said pair of primers independently contains a modified nucleotide within the three 3' terminal nucleotide positions; wherein said modified nucleotide is selected from the group consisting of **2'-O-methyl** nucleotides, 2'-fluoro-nucleotides, 2'-amino nucleotides, and arabinose nucleotides.

L2 ANSWER 23 OF 53 USPATFULL

ACCESSION NUMBER:	2001:121255 USPATFULL
TITLE:	Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions
INVENTOR(S):	Barany, Francis, 450 E. 63rd St., New York, NY, United States 10021 Lubin, Matthew, 20 Magnolia Dr., Rye Brook, NY, United States 10573-1820 Belgrader, Phillip, 719 Pebble Way, Manteca, CA, United States 95336

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6268148	B1	20010731
APPLICATION INFO.:	US 1999-440523		19991115 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-864473, filed on 28 May 1997, now patented, Pat. No. US 6027889		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-18532P	19960529 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Horlick, Kenneth R.
LEGAL REPRESENTATIVE:	Nixon Peabody LLP
NUMBER OF CLAIMS:	26
EXEMPLARY CLAIM:	23
NUMBER OF DRAWINGS:	45 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT:	3653

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . while the other is sensitive. Only the presence of full length ligation product sequence will prevent digestion of the upstream **primer**. Blocking groups include use of a thiophosphate group and/or use of **2-O-methyl** ribose sugar groups in the backbone. Exonucleases include Exo I (3'-5'), Exo III (3'-5'), and Exo IV (both 5'-3' and. . . exonuclease treatment) and formation of a ligation product sequence which is a suitable substrate for PCR amplification by the oligonucleotide **primer** set is substantially reduced. In other words, formation of ligation independent

labeled extension products is substantially reduced or eliminated.

L2 ANSWER 27 OF 53 USPATFULL
ACCESSION NUMBER: 2000:142135 USPATFULL
TITLE: De novo polynucleotide synthesis using rolling templates
INVENTOR(S): Hiatt, Andrew C., 660 Torrance St., San Diego, CA, United States 92103
Rose, Floyd D., 117 Via de la Valle, Del Mar, CA, United States 92014

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6136568		20001024
APPLICATION INFO.:	US 1997-929856		19970915 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Riley, Jezia
LEGAL REPRESENTATIVE: Lerner, David, Littenberg, Krumholz & Mentlik, LLP
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 2778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD In general, the primers of the present invention are composed of dNTPs, rNTPs, peptide-nucleic acids (PNAs), **2'-O-methyl** rNTPs, thiophosphate linkages, additions to the amines of the bases (e.g. linkers to functional groups such as biotin), non-standard bases. . . . before and after a reaction with a TDP. After reacting with a TDP in the presence of the template, the **primer** is extended at its 3' end by at least one additional nucleotide, the added nucleotide(s) being complementary to the nucleotide(s). . . .

L2 ANSWER 28 OF 53 USPATFULL
ACCESSION NUMBER: 2000:134705 USPATFULL
TITLE: Method for amplifying target nucleic acids using modified primers
INVENTOR(S): Becker, Michael M., San Diego, CA, United States
Majlessi, Mehrdad, San Diego, CA, United States
Brentano, Steven T., Santee, CA, United States
PATENT ASSIGNEE(S): Gen-Probe Incorporated, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6130038		20001010
APPLICATION INFO.:	US 1997-893300		19970715 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21818P	19960716 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Elliott, George C.
ASSISTANT EXAMINER: Shibuya, Mark L.
LEGAL REPRESENTATIVE: Cappellari, Charles B., Fisher, Carlos A.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2602
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . intermediate in the nucleic acid amplification reaction. In this embodiment, the use of preferred 2'-modified primers, such as oligonucleotides containing **2'-O-methyl** nucleotides, permits their use at a higher hybridization temperature due

to the relatively higher T.sub.m conferred to the hybrid, as. . . deoxyoligonucleotide of the same sequence. Also, due to the preference of such 2'-modified oligonucleotides for RNA over DNA, competition for **primer** molecules by non-target DNA sequences in a test sample may also be reduced. Further, in applications wherein specific RNA sequences. . .

CLM What is claimed is:

. . . analyte, said method comprising the steps of: a) contacting a sample suspected of containing said target analyte with an oligonucleotide **primer** under conditions such that a first nucleotide base region of said **primer** forms a stable hybrid with a second nucleotide base region of said target analyte, wherein said first nucleotide base region contains one or more ribonucleotides modified to include a **2'-O-methyl** substitution to the ribofuranosyl moiety; and b) incubating said sample under conditions such that said target sequence is amplified.

5. The method of claim 1, wherein each nucleotide of said **primer** is a ribonucleotide modified to include a **2'-O-methyl** substitution to the ribofuranosyl moiety.

L2 ANSWER 29 OF 53 USPATFULL

ACCESSION NUMBER:	2000:121279 USPATFULL
TITLE:	Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon
INVENTOR(S):	Nazarenko, Irina A., Gaithersburg, MD, United States Bhatnagar, Satish K., Gaithersburg, MD, United States Winn-Deen, Emily S., Potomac, MD, United States Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S):	Intergen Company, Purchase, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6117635		20000912
APPLICATION INFO.:	US 1997-837034		19970411 (8)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-778487, filed on 3 Jan 1997, now patented, Pat. No. US 5866336 which is a continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Marschel, Ardin H.
ASSISTANT EXAMINER:	Tung, Joyce
LEGAL REPRESENTATIVE:	Foley & Lardner
NUMBER OF CLAIMS:	104
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	30 Drawing Figure(s); 39 Drawing Page(s)
LINE COUNT:	4107

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DRWD FIG. 7 illustrates schematically triamplification using two linear primers, each labeled with a FRET moiety. BL, blocker; R, reverse **primer**; F, forward **primer**; .box-solid., a commercially available 3' modifying group able to protect the oligonucleotide from extension by DNA polymerase or hydrolysis by 3'-5' exonuclease on the 3' end of the blocker; X, **2'-O-methyl** -modification in reverse **primer**; D, donor fluorophore; A.largecircle., acceptor fluorophore.

DRWD . . . the effect of (A) 3'-5' exonuclease and (B) elevated temperature on unincorporated FRET-labeled primers during triamplification. BL, blocker; R, reverse **primer**; F, forward **primer**; P, 5' phosphate; .box-solid., protection group on 3'-end of blocker; X, **2'-O-methyl**-modification in

reverse **primer**; D, donor fluorophore; A.largecircle., acceptor fluorophore.

DETD . . . Preferably, blocker is used at a 1.2 to 2-fold higher concentration than the concentration of forward and reverse primers. The **primer** complementary to the blocker preferably is modified to prevent strand displacement during amplification; in a preferred embodiment, this **primer** contains **2'-O-methyl** at the position complementary to the 5' end of the blocker in order to prevent strand displacement.

DETD Three oligodeoxynucleotides complementary to segments of human prostate specific antigen (PSA) DNA were synthesized (FIG. 12). Reverse **primer** contained a **2'-O-methyl** moiety at a position complementary to the 5'-end of the blocker. This modification was essential for prevention of strand displacement. . . . order to protect it from 3'-5' hydrolysis and from undesirable extension during amplification. During the synthesis of blocker and forward **primer**, the primary amino group was incorporated on the modified T-base (Amino-Modifier C6 dT) as described by Ju et al. (1995,. . . . and FAM (as a donor) and rhodamine (as an acceptor) were attached to a modified thymidine residue of the reverse **primer** and blocker, respectively, by the method published by Ju et al. (1995, Proc. Natl. Acad. Sci. USA 92:4347-4351). Labeled oligonucleotides. . .

L2 ANSWER 30 OF 53 USPATFULL

ACCESSION NUMBER:	2000:98562 USPATFULL
TITLE:	Circular DNA vectors for synthesis of RNA and DNA
INVENTOR(S):	Kool, Eric T., Rochester, NY, United States
PATENT ASSIGNEE(S):	University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6096880		20000801
APPLICATION INFO.:	US 1997-805631		19970226 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-393439, filed on 23 Feb 1995, now patented, Pat. No. US 5714320 which is a continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Elliot, George C.		
ASSISTANT EXAMINER:	McGarry, Sean		
LEGAL REPRESENTATIVE:	Mueting, Raasch & Gebhardt, P.A.		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	3103		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . the synthesis of DNA and RNA oligomers, and synthetically modified analogs thereof such as, for example, DNA phosphorothioates, RNA phosphorothioates, **2'-O-methyl** ribonucleotides, involves these general steps: (1) providing an effective amount of a single-stranded oligonucleotide circular template and, in the case of DNA synthesis, an effective amount of a single-stranded oligonucleotide **primer**; (2) in the case of DNA synthesis, annealing the oligonucleotide **primer** to the oligonucleotide circular template to form a primed circular template; (3) combining the circular template (the primed template in. . .

L2 ANSWER 31 OF 53 USPATFULL

ACCESSION NUMBER:	2000:91707 USPATFULL
TITLE:	Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon
INVENTOR(S):	Nazarenko, Irina A., Gaithersburg, MD, United States

	Bhatnagar, Satish K., Gaithersburg, MD, United States Winn-Deen, Emily S., Potomac, MD, United States Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S):	Intergen Company, Purchase, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090552		20000718
APPLICATION INFO.:	US 1997-891516		19970711 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-837034, filed on 11 Apr 1997 which is a continuation-in-part of Ser. No. US 1997-778487, filed on 3 Jan 1997, now patented, Pat. No. US 5866336 which is a continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Marschel, Ardin H.
ASSISTANT EXAMINER:	Tung, Joyce
LEGAL REPRESENTATIVE:	Foley & Lardner
NUMBER OF CLAIMS:	103
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	38 Drawing Figure(s); 48 Drawing Page(s)
LINE COUNT:	4617

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DRWD FIG. 7 illustrates schematically triamplification using two linear primers, each labeled with a FRET moiety. BL, blocker; R, reverse **primer**; F, forward **primer**; .box-solid., a commercially available 3' modifying group able to protect the oligonucleotide from extension by DNA polymerase or hydrolysis by 3'-5' exonuclease on the 3' end of the blocker; X, **2'-O-methyl**-modification in reverse **primer**; D, donor fluorophore; A.smallcircle., acceptor fluorophore.

DRWD . . . the effect of (A) 3'-5' exonuclease and (B) elevated temperature on unincorporated FRET-labeled primers during triamplification. BL, blocker; R, reverse **primer**; F, forward **primer**; P, 5' phosphate; .box-solid., protection group on 3'-end of blocker; X, **2'-O-methyl**-modification in reverse **primer**; D, donor fluorophore; A.smallcircle., acceptor fluorophore.

DETD . . . Preferably, blocker is used at a 1.2 to 2-fold higher concentration than the concentration of forward and reverse primers. The **primer** complementary to the blocker preferably is modified to prevent strand displacement during amplification; in a preferred embodiment, this **primer** contains **2'-O-methyl** at the position complementary to the 5' end of the blocker in order to prevent strand displacement.

DETD Three oligodeoxynucleotides complementary to segments of human prostate specific antigen (PSA) DNA were synthesized (FIG. 12). Reverse **primer** contained a **2'-O-methyl** moiety at a position complementary to the 5'-end of the blocker. This modification was essential for prevention of strand displacement. . . . to protect it from 3'-5' exonuclease hydrolysis and from undesirable extension during amplification. During the synthesis of blocker and forward **primer**, the primary amino group was incorporated on the modified T-base (Amino-Modifier C6 dT) as described by Ju et al. (1995,. . . and FAM (as a donor) and rhodamine (as an acceptor) were attached to a modified thymidine residue of the reverse **primer** and blocker, respectively, by the method published by Ju et al. (1995, Proc. Natl. Acad. Sci. USA 92:4347-4351). Labeled oligonucleotides. . .

L2 ANSWER 32 OF 53 USPATFULL

ACCESSION NUMBER: 2000:77184 USPATFULL

TITLE: Highly sensitive multimeric nucleic acid probes
INVENTOR(S): Kool, Eric T., Rochester, NY, United States
PATENT ASSIGNEE(S): University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077668		20000620
APPLICATION INFO.:	US 1997-910632		19970813 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-805631, filed on 26 Feb 1997 And Ser. No. US 1995-393439, filed on 23 Feb 1995, now patented, Pat. No. US 5714320, issued on 3 Feb 1998 which is a continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Brusca, John S.
ASSISTANT EXAMINER: McGarry, Sean
LEGAL REPRESENTATIVE: Mueting, Raasch & Gebhardt, P.A.
NUMBER OF CLAIMS: 66
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 3477
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . of DNA and RNA oligomers, and synthetically modified analogs thereof such as, for example, those containing DNA phosphorothioates, RNA phosphorothioates, **2'-O-methyl** ribonucleotides, involves these general steps: (1) providing an effective amount of a single-stranded oligonucleotide circular template and, in the case of DNA synthesis, an effective amount of a single-stranded oligonucleotide **primer**; (2) in the case of DNA synthesis, annealing the oligonucleotide **primer** to the oligonucleotide circular template to form a primed circular template; (3) combining the circular template (the primed template in. . .

L2 ANSWER 33 OF 53 USPATFULL
ACCESSION NUMBER: 2000:21383 USPATFULL
TITLE: Detection of nucleic acid sequence differences using coupled ligase detection and polymerase chain reactions
INVENTOR(S): Barany, Francis, New York, NY, United States
Lubin, Matthew, Rye Brook, NY, United States
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6027889		20000222
APPLICATION INFO.:	US 1997-864473		19970528 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-18532P	19960529 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Horlick, Kenneth R.
LEGAL REPRESENTATIVE: Nixon, Hargrave, Devans & Doyle LLP
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 45 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT: 4414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . while the other is sensitive. Only the presence of full length ligation product sequence will prevent digestion of the upstream **primer**. Blocking groups include use of a thiophosphate group and/or use of **2-O-methyl** ribose sugar

groups in the backbone. Exonucleases include Exo I (3'-5'), Exo III (3'-5'), and Exo IV (both 5'-3' and. . . exonuclease treatment) and formation of a ligation product sequence which is a suitable substrate for PCR amplification by the oligonucleotide **primer** set is substantially reduced. In other words, formation of ligation independent labeled extension products is substantially reduced or eliminated.

L2 ANSWER 34 OF 53 USPATFULL

ACCESSION NUMBER:	1999:137028 USPATFULL
TITLE:	Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S):	Kole, Ryszard, Chapel Hill, NC, United States Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S):	The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976879		19991102
APPLICATION INFO.:	US 1999-302390		19990430 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-802384, filed on 19 Feb 1997, now patented, Pat. No. US 5916808 which is a continuation of Ser. No. US 1995-453224, filed on 30 May 1995, now patented, Pat. No. US 5627274 which is a division of Ser. No. US 1995-379079, filed on 26 Jan 1995, now patented, Pat. No. US 5665593 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	LeGuyader, John L.
LEGAL REPRESENTATIVE:	Myers Bigel Sibley & Sajovec
NUMBER OF CLAIMS:	13
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT:	894

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . is sufficiently sensitive for easy detection in stable cell lines. The reverse transcriptase step is carried out with a 3' **primer** that hybridizes to the aberrant sequences in thalassemic mRNA and spans the splice junction. This assures that the contaminating DNA. . . do not interfere with the assay. The cloned cell lines that express thalassemic pre-mRNA are used for treatment with antisense **2'-O-methyl**-oligonucleotides as described below.

L2 ANSWER 35 OF 53 USPATFULL

ACCESSION NUMBER:	1999:110192 USPATFULL
TITLE:	Methods using exogenous, internal controls and analogue blocks during nucleic acid amplification
INVENTOR(S):	Aoyagi, Kazuko, Emeryville, CA, United States Livak, Kenneth J., San Jose, CA, United States
PATENT ASSIGNEE(S):	The Perkin Elmer Corporation, Foster City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5952202		19990914
APPLICATION INFO.:	US 1998-48880		19980326 (9)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Horlick, Kenneth R.
ASSISTANT EXAMINER:	Siew, Jeffrey
LEGAL REPRESENTATIVE:	Bortner, Scott R.
NUMBER OF CLAIMS:	18

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1431
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM The block may be comprised of modifications to the internucleotide linkage, the sugar, or nucleobase moieties of a DNA **primer** to render it non-extendable by polymerase. An example of a suitable modification is a 3' phosphate group. Analogs of DNA may be employed as the block, such as, 2-aminoethylglycine, peptide-nucleic acid (PNA) and other amide-linked oligomers; **2'-O-methyl** and other 2'-O-alkyl oligoribonucleotides; phosphorothioate and other phosphate analogs; and the like. The block is selected for several properties, including. . .

L2 ANSWER 36 OF 53 USPATFULL
ACCESSION NUMBER: 1999:72501 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Chapel Hill, NC, United States
Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5916808		19990629
APPLICATION INFO.:	US 1997-802384		19970219 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-453224, filed on 30 May 1995, now patented, Pat. No. US 5627274 which is a division of Ser. No. US 1995-379079, filed on 26 Jan 1995, now patented, Pat. No. US 5665593 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: LeGuyader, John L.
LEGAL REPRESENTATIVE: Myers Bigel Sibley & Sajovec
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 880
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . is sufficiently sensitive for easy detection in stable cell lines. The reverse transcriptase step is carried out with a 3' **primer** that hybridizes to the aberrant sequences in thalassemic mRNA and spans the splice junction. This assures that the contaminating DNA. . . do not interfere with the assay. The cloned cell lines that express thalassemic pre-mRNA are used for treatment with antisense **2'-O-methyl**-oligonucleotides as described below.

L2 ANSWER 37 OF 53 USPATFULL
ACCESSION NUMBER: 1999:15694 USPATFULL
TITLE: Nucleic acid amplification oligonucleotides with molecular energy transfer labels and methods based thereon
INVENTOR(S): Nazarenko, Irina A., Gaithersburg, MD, United States
Bhatnagar, Satish K., Gaithersburg, MD, United States
Winn-Deen, Emily S., Potomac, MD, United States
Hohman, Robert J., Gaithersburg, MD, United States
PATENT ASSIGNEE(S): Oncor, Inc., Gaithersburg, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 5866336 19990202
APPLICATION INFO.: US 1997-778487 19970103 (8)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-683667, filed on 16 Jul 1996, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Horlick, Kenneth R.
ASSISTANT EXAMINER: Tung, Joyce
LEGAL REPRESENTATIVE: Cohen, Jonathan M.Oncor, Inc.
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 46 Drawing Figure(s); 34 Drawing Page(s)
LINE COUNT: 3045
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DRWD FIG. 7 illustrates schematically triamplification using two linear primers, each labeled with a FRET moiety. BL, blocker; R, reverse **primer**; F, forward **primer**; .box-solid., a commercially available 3' modifying group able to protect the oligonucleotide from extension by DNA polymerase or hydrolysis by 3'-5' exonuclease on the 3' end of the blocker; X, **2'-O-methyl** -modification in reverse **primer**; D, donor fluorophore; A.smallcircle., acceptor fluorophore.

DRWD . . . the effect of (A) 3'-5' exonuclease and (B) elevated temperature on unincorporated FRET-labeled primers during triamplification. BL, blocker; R, reverse **primer**; F, forward **primer**; P, 5' phosphate; .box-solid., protection group on 3'-end of blocker; X, **2'-O-methyl**-modification in reverse **primer**; D, donor fluorophore; A.smallcircle., acceptor fluorophore.

DETD . . . Preferably, blocker is used at a 1.2 to 2-fold higher concentration than the concentration of forward and reverse primers. The **primer** complementary to the blocker preferably is modified to prevent strand displacement during amplification; in a preferred embodiment, this **primer** contains **2'-O-methyl** at the position complementary to the 5' end of the blocker in order to prevent strand displacement.

DETD Three oligodeoxynucleotides complementary to segments of human prostate specific antigen (PSA) DNA were synthesized (FIG. 12). Reverse **primer** contained a **2'-O-methyl** moiety at a position complementary to the 5'-end of the blocker. This modification was essential for prevention of strand displacement. . . to protect it from 3'-5' exonuclease hydrolysis and from undesirable extension during amplification. During the synthesis of blocker and forward **primer**, the primary amino group was incorporated on the modified T-base (Amino-Modifier C6 dT) as described by Ju et al. (1995,. . . and FAM (as a donor) and rhodiamine (as an acceptor) were attached to a modified thymidine residue of the reverse **primer** and blocker, respectively, by the method published by Ju et al. (1995, Proc. Natl. Acad. Sci. USA 92:4347-4351). Labeled oligonucleotides. . .

L2 ANSWER 38 OF 53 USPATFULL
ACCESSION NUMBER: 1999:1787 USPATFULL
TITLE: Oligonucleotides specific for hepatitis B virus
INVENTOR(S): Frank, Bruce L., Marlborough, MA, United States
Roberts, Peter C., Holliston, MA, United States
Goodchild, John, Westborough, MA, United States
Craig, J. Charles, Welwyn Garden, United Kingdom
Mills, John S., Welwyn Garden, United Kingdom
PATENT ASSIGNEE(S): Hybridon, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5856459		19990105

APPLICATION INFO.: US 1995-468352 19950606 (8)
RELATED APPLN. INFO.: Division of Ser. No. US 1995-467397, filed on 6 Jun 1995, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Ketter, James
ASSISTANT EXAMINER: Brusca, John S. ,
LEGAL REPRESENTATIVE: Hale and Dorr LLP
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 1710
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . for the DNA portion of the oligonucleotide was calculated by using OLIGSOL (Lautenberger (1991) Biotechniques 10:778-780). The E.sub.260 of the **2'-O-methyl** portion was calculated by using OLIGO 4.0 **Primer** Extension Software (NBI, Plymouth, Minn.).

L2 ANSWER 39 OF 53 USPATFULL
ACCESSION NUMBER: 1998:154041 USPATFULL
TITLE: Methods for detecting the RNA component of telomerase
INVENTOR(S): Kim, Nam Woo, San Jose, CA, United States
Wu, Fred, San Carlos, CA, United States
Kealey, James T., San Anselmo, CA, United States
Pruzan, Ronald, Palo Alto, CA, United States
Weinrich, Scott L., Redwood City, CA, United States
PATENT ASSIGNEE(S): Geron Corporation, Menlo Park, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5846723		19981208
APPLICATION INFO.:	US 1996-770565		19961220 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Rees, Dianne
LEGAL REPRESENTATIVE: Kaster, Kevin R., Storella, John R., Parent, Annette S.
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 1685
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . "21" (directed against nucleotides 137 to 166 of hTR) resulted in potent inhibition of hTase, as indicated by the standard **primer** elongation assay. Antisense oligonucleotides "14" and "16" and a "sense" oligonucleotide did not significantly affect hTase activity. A 20 mer antisense oligonucleotide comprised of **2'-o-methyl** RNA directed against nucleotides 147 to 166 of hTR also inhibited hTase. The concentration of antisense oligonucleotide that yielded 50%. . .

L2 ANSWER 40 OF 53 USPATFULL
ACCESSION NUMBER: 1998:11870 USPATFULL
TITLE: Rolling circle synthesis of oligonucleotides and amplification of select randomized circular oligonucleotides
INVENTOR(S): Kool, Eric T., Rochester, NY, United States
PATENT ASSIGNEE(S): University of Rochester, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5714320		19980203

APPLICATION INFO.: US 1995-393439 19950223 (8)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-47860, filed on 15 Apr 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Rees, Dianne
LEGAL REPRESENTATIVE: Mueting, Raasch, Gebhardt & Schwappach, P.A.
NUMBER OF CLAIMS: 47
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 2583
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . the synthesis of DNA and RNA oligomers, and synthetically modified analogs thereof, such as, for example, DNA phosphorothioates, RNA phosphorothioates, **2'-O-methyl** ribonucleotides, involves these general steps: (1) providing an effective amount of an isolated single-stranded oligonucleotide circular template and an effective amount of an isolated single-stranded oligonucleotide **primer**; (2) annealing the oligonucleotide **primer** to the oligonucleotide circular template to form a primed circular template; (3) combining the primed circular template with an effective. . .

L2 ANSWER 41 OF 53 USPATFULL
ACCESSION NUMBER: 97:81145 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Orange County, NC, United States
Dominski, Zbigniew, Orange County, NC, United States
PATENT ASSIGNEE(S): University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5665593		19970909
APPLICATION INFO.:	US 1995-379079		19950126 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rories, Charles C. P.
LEGAL REPRESENTATIVE: Bell, Seltzer, Park & Gibson
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 865
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . is sufficiently sensitive for easy detection in stable cell lines. The reverse transcriptase step is carried out with a 3' **primer** that hybridizes to the aberrant sequences in thalassemic mRNA and spans the splice junction. This assures that the contaminating DNA. . . do not interfere with the assay. The cloned cell lines that express thalassemic pre-mRNA are used for treatment with antisense **2'-O-methyl**-oligonucleotides as described below.

L2 ANSWER 42 OF 53 USPATFULL
ACCESSION NUMBER: 97:38617 USPATFULL
TITLE: Antisense oligonucleotides which combat aberrant splicing and methods of using the same
INVENTOR(S): Kole, Ryszard, Chapel Hill, NC, United States
Dominski, Zbigniew, Chapel Hill, NC, United States
PATENT ASSIGNEE(S): The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5627274		19970506
APPLICATION INFO.:	US 1995-453224		19950530 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-379079, filed on 26 Jan 1995 which is a continuation of Ser. No. US 1993-62471, filed on 11 May 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rories, Charles C. P.
LEGAL REPRESENTATIVE: Bell, Seltzer, Park & Gibson
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 834
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . is sufficiently sensitive for easy detection in stable cell lines. The reverse transcriptase step is carried out with a 3' **primer** that hybridizes to the aberrant sequences in thalassemic mRNA and spans the splice junction. This assures that the contaminating DNA. . . do not interfere with the assay. The cloned cell lines that express thalassemic pre-mRNA are used for treatment with antisense **2'-O-methyl**-oligonucleotides as described below.

L2 ANSWER 43 OF 53 USPATFULL
ACCESSION NUMBER: 97:12340 USPATFULL
TITLE: Method for enzymatic synthesis of oligonucleotides
INVENTOR(S): Hyman, Edward D., 2100 Sawmill Rd., River Ridge, LA, United States 70123

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5602000		19970211
APPLICATION INFO.:	US 1995-464778		19950623 (8)

DISCLAIMER DATE: 20121223
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-161224, filed on 2 Dec 1993, now patented, Pat. No. US 5516664, issued on 14 May 1996 Ser. No. Ser. No. US 1993-100671, filed on 30 Jul 1993 And Ser. No. US 1992-995791, filed on 23 Dec 1992, now patented, Pat. No. US 5436143, issued on 25 Jul 1995
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Rees, Dianne
LEGAL REPRESENTATIVE: Oppedahl & Larson
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 2002
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD (3) If the initial **primer** contains a 3'-terminal **2'-O-methyl** ribose base, then the initial **primer** can be cleaved off by incubation with RNase alpha (J. Norton et al, J. Biol. Chem., (1967), 242(9), 2029-34). RNase alpha cuts only at bases containing a **2'-O-methyl** ribose sugar.

L2 ANSWER 44 OF 53 USPATFULL
ACCESSION NUMBER: 97:3689 USPATFULL
TITLE: Amplification of nucleic acid sequences
INVENTOR(S): Bhatnagar, Satish K., Gaithersburg, MD, United States
George, Jr., Albert L., Gaithersburg, MD, United States
Nazarenko, Irina, Gaithersburg, MD, United States

PATENT ASSIGNEE(S): Oncor, Inc., Gaithersburg, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5593840		19970114
APPLICATION INFO.:	US 1995-461823		19950605 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-168621, filed on 16 Dec 1993 which is a continuation-in-part of Ser. No. US 1993-10433, filed on 27 Jan 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Sisson, Bradley L.
ASSISTANT EXAMINER: Fredman, Jeffrey
LEGAL REPRESENTATIVE: Karta, Glenn E.
NUMBER OF CLAIMS: 59
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 2023
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD

Lane P .sup.32 P labelled **primer** (oligo 5)
Lane A1, B1, C1, and D1 .sup.32 P labelled 63 mer template.
Lane A2-A5 synthesis on control template
Lane B2-B5 synthesis on AraC template
Lane C2-C5 synthesis on **2'- O- Methyl** C template
Lane D2-D5 synthesis on Methyl Phosphonate template

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Executing the logoff script...

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	175.41	175.62

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:29:24 ON 28 MAY 2003